

*Personal Systems Reference
Version 377 - May 2010*

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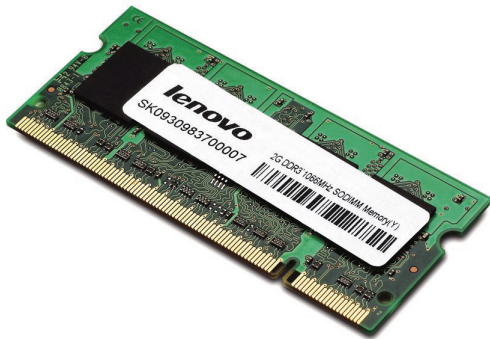


Personal Systems Reference *Lenovo® ThinkPad® Notebooks*

May 2010 - Version 377



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PC3-8500 DDR3 Low-Halogen SODIMM
1GB 55Y3706
2GB 55Y3707



ThinkPad Mini Dock Plus Series 3
433810U



USB 2.0 Portable Secure Hard Disk
160GB 43R2018
320GB 43R2019



ThinkPad Bluetooth Laser Mouse
41U5008



ThinkPad Checkpoint Friendly
Business Topload Case
51J0418



90W Ultraslim AC/DC Combo Adapter
41R4493

ThinkPad®



Lenovo® ThinkPad R400



ThinkLight on



Lenovo USB-to-DVI Monitor Adapter
45K5296



Lenovo ThinkPad R400



Lenovo ThinkPad R400



ThinkPad Battery 33++ (9-cell)
43R2499

ThinkPad® R400 7438 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Avail date
7438-68U	P8700	2.53	2GB	14.1" WXGA	Cam	GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Finger	Blue	6	XP Pro	Oct 09

- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This model has an EasyServ™¹⁹ depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache			Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available;					
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 250GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio					
Camera	Camera on top of screen, 1.3-megapixel, fixed focus			Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution:</i> 2048x1536@75Hz					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label			ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm					
Weight ²	6-cell: starting at 5.42 lb (2.46kg)					
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic			ThinkPad Battery 33 (4-cell) 41U3196 ThinkPad Battery 33+ (6-cell) 41U3198 ThinkPad Battery 33++ (9-cell) 43R2499 Other accessories at lenovo.com/accessories		
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced					
Battery - life ¹⁰	6-cell: up to 5 hr; 6-cell plus Ultrabay battery: up to 6.5 hr; 9-cell: up to 7.5 hr					
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)					
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)			ThinkPad Battery 33 (4-cell) 41U3196 ThinkPad Battery 33+ (6-cell) 41U3198 ThinkPad Battery 33++ (9-cell) 43R2499 Other accessories at lenovo.com/accessories		
PC Card	One slot (Type I, Type II), CardBus 32-bit					
Smart Card Read	None					
Multicard Reader	None					
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			ThinkPad Battery 33 (4-cell) 41U3196 ThinkPad Battery 33+ (6-cell) 41U3198 ThinkPad Battery 33++ (9-cell) 43R2499 Other accessories at lenovo.com/accessories		
Mini PCI Express	Three Mini PCI Express slots					
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)					
WWAN	None					
2G Turbo	None			ThinkPad Battery 33 (4-cell) 41U3196 ThinkPad Battery 33+ (6-cell) 41U3198 ThinkPad Battery 33++ (9-cell) 43R2499 Other accessories at lenovo.com/accessories		
UWB	None					
Modem	56K V.92 ⁶ modem					
Bluetooth™	Bluetooth 2.1 wireless, LED indicator					
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1			ThinkPad Battery 33 (4-cell) 41U3196 ThinkPad Battery 33+ (6-cell) 41U3198 ThinkPad Battery 33++ (9-cell) 43R2499 Other accessories at lenovo.com/accessories		
Intel AMT	None					
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant			ThinkPad Battery 33 (4-cell) 41U3196 ThinkPad Battery 33+ (6-cell) 41U3198 ThinkPad Battery 33++ (9-cell) 43R2499 Other accessories at lenovo.com/accessories		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available					
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706		ThinkPad Battery 33 (4-cell)			
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707		ThinkPad Battery 33+ (6-cell)	41U3198		
ThinkPad Advanced Mini Dock	250410U		ThinkPad Battery 33++ (9-cell)	43R2499		
Other accessories on O-R400 sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information
US model announced October 22, 2009

Intel Centrino® 2 processor technology

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ThinkPad® R400 7443 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Avail date
7443-31U	T6670	2.20	2GB	14.1" WXGA	Cam	GMA	250G 5400	DVD±RW	11n ²⁸	None	None	Finger	Blue	6	XP Pro	Oct 09

• This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor T6670 with dual-core Intel HD Boost, 800MHz system bus, and 2MB L2 cache			Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW) Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available;					
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 250GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio					
Camera	Camera on top of screen, 1.3-megapixel, fixed focus					
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution:</i> 2048x1536@75Hz					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm					
Weight ²	<i>6-cell:</i> starting at 5.42 lb (2.46kg)					
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic					
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced					
Battery - life ¹⁰	<i>6-cell:</i> up to 5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.5 hr; <i>9-cell:</i> up to 7.5 hr					
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54)					
ExpressCard/54	One slot (Type I, Type II), CardBus 32-bit					
PC Card	None					
Smart Card Read	None					
Multicard Reader	None					
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Mini PCI Express	Three Mini PCI Express slots					
11n ²⁸	11b/g/n wireless, Mini-PCIe Adapter II					
WWAN	None					
2G Turbo	None					
UWB	None					
Modem	56K V.92 ⁶ modem					
Bluetooth™	Bluetooth 2.1 wireless, LED indicator					
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1					
Intel AMT	None					
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant					
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	1-year - EasyServ™. ¹⁹ depot repair service / service upgrades ²² available					
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 33 (4-cell)	41U3196			
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 33+ (6-cell)	41U3198			
ThinkPad Advanced Mini Dock	250410U	ThinkPad Battery 33++ (9-cell)	43R2499			
Other accessories on O-R400 sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information
US model announced October 22, 2009

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Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger Card slot	Blue- tooth	Bat- tery	Whorse (W) Gbl (G) Avail	date
7439-1WUCel 575	2.00	2GB	14.1" WXGA			GMA 160G 5400 DVD±RW	Intel 5100 ²⁸	None				PC	Fing	Blue	6 Bus 32	Sep08
7439-11UP8400	2.26	1GB	14.1" WXGA			GMA 80G 5400 Combo	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 Bus 32	G Aug08
7439-12UT9400	2.53	1GB	14.1" WXGA			GMA 160G 5400 Combo	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 Bus 32	WG Aug08
7439-V1UT9400	2.53	2GB	14.1" WXGA		Cam	GMA 160G 7200 DVD±RW	Intel 5100	None	Intel 5100	None	2G Turbo	7-in-1	Fing	Blue	6 Bus 32	WG Aug08
7439-V2UP8400	2.26	1GB	14.1" WXGA		Cam	GMA 160G 5400 Combo	Intel 5100	None	Intel 5100	None		7-in-1	Fing	Blue	6 Bus 32	WG Aug08
7439-V5UT9400	2.53	1GB	14.1" WXGA		Cam	GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None		7-in-1	Fing	Blue	6 Bus 32	WG Aug08
7439-1BUP8600	2.40	2GB	14.1" WXGA+			GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None	2G Turbo	7-in-1	Fing	Blue	6 Bus 32	WG Aug08
7439-1CUT9400	2.53	2GB	14.1" WXGA			GMA 160G 5400 DVD±RW	Intel 5300 ²⁸	None	Intel 5300 ²⁸	None	2G Turbo	7-in-1	Fing	Blue	6 Bus 32	WG Aug08
7439-1TUP8600	2.40	1GB	14.1" WXGA			GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None		Smart			6 Bus 32	TAA Aug08
7439-PAUP8600	2.40	2GB	14.1" WXGA			GMA 160G 5400 Combo	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 XP Pro	G Sep08
7439-PCUP8600	2.40	2GB	14.1" WXGA+			GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None	2G Turbo	7-in-1	Fing	Blue	6 XP Pro	G Sep08
7439-T1UP8600	2.40	2GB	14.1" WXGA			GMA 160G 5400 Combo	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 XP Pro	G Sep08
7439-V3UT9400	2.53	2GB	14.1" WXGA		Cam	GMA 160G 7200 DVD±RW	Intel 5100	None	Intel 5100	None	UWB	7-in-1	Fing	Blue	9 Bus 32	W Oct08
7439-T2UP8600	2.40	1GB	14.1" WXGA			GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None		Smart			6 Bus 32	TAA Oct08
7439-PDUP8600	2.40	2GB	14.1" WXGA			GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 Bus 32	WG Dec08
US Govt (TAA) ⁵ Processor	1TU/2TU: US Government model (Trade Act Agreement-compliant) Intel® Celeron® Processor 575 with single-core, 667MHz system bus, and 1MB L2 cache Intel Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache												Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ♦ Vista models: Vista Premium logo			
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA DB-15)															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm 6-cell: starting at 5.42 lb (2.46kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 5 hr; 6-cell plus Ultrabay battery: up to 6.5 hr; 9-cell: up to 7.5 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												Supports ThinkVantage® technologies			
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit Some: Smart Card reader Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 None Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator Some: Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available															
2GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-R400 sheet	55Y3707 ThinkPad Battery 33++ (9-cell) Other accessories at lenovo.com/accessories															

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

✦ US models announced December 2, 2008; previous models on Aug 5, Sep 2, Sep 30, or October 7, 2008

✦ US models withdrawn effective August 2009, October 2009, or January 2010

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(LAG3-2) December 2008

Type-model	Processor	GHz	Memory	Wide-screen display	Cam-Integrated era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Card slot	Blue/Fing	Battery cells	Whorse (W) Gbl (G) Avail
7440-11U	P8400	2.26	1GB	14.1" WXGA		GMA 80G	5400 Combo		Intel 5100 ²⁸	None		PC	Yes	6	Bus 32 G P Aug 08
7440-12U	T9400	2.53	1GB	14.1" WXGA		GMA 160G	5400 Combo		Intel 5100	None		PC	Yes	6	Bus 32 W G P Aug 08
7440-V1U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G	7200 DVD±RW		Intel 5100	None	2G Turbo	7-in-1	Yes	6	Bus 32 W G P Aug 08
7440-V5U	T9400	2.53	1GB	14.1" WXGA	Cam	GMA 160G	5400 DVD±RW		Intel 5100	None		7-in-1	Yes	6	Bus 32 W G P Aug 08
7440-T1U	P8600	2.40	2GB	14.1" WXGA		GMA 160G	5400 Combo		Intel 5100	None		PC	Yes	6	Bus 32 W G P Sep 08
7440-PDUP	P8600	2.40	2GB	14.1" WXGA		GMA 160G	5400 DVD±RW		Intel 5100	None		PC	Yes	6	Bus 32 W G P Dec 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache			Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo Preloaded applications ¹⁴ (all OSES; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available			
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB ⁸ (5400 rpm) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: camera on top of screen, 1.3-megapixel, fixed focus			
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock Maximum external resolution: 2048x1536@75Hz			
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm 6-cell: starting at 5.42 lb (2.46kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 5 hr; 6-cell plus Ultrabay battery: up to 6.5 hr; 9-cell: up to 7.5 hr			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub) / ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit			
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip			
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available			
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM ThinkPad Advanced Mini Dock Other accessories on O-R400 sheet	55Y3706 55Y3707 250410U	ThinkPad Battery 33 (4-cell) ThinkPad Battery 33+ (6-cell) ThinkPad Battery 33++ (9-cell) Other accessories at lenovo.com/accessories	41U3196 41U3198 43R2499	
Supports ThinkVantage® technologies				
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
ThinkPlus™. 22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

✧ Intel Centrino® 2 processor technology

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US model announced December 2, 2008; previous models on August 5 or September 2, 2008

(LAG3-3) December 2008

US model withdrawn effective August 2009 or January 2010

ThinkPad® R400 7439 (Education) - EasyServ

Personal Systems Reference (PSREF)

	Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam-Integrated era graphics	Disk SATA GB ⁸	SATA rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Card slot	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G) Avail date		
⚡	7439-E1U	Cel 585	2.16	1GB	14.1" WXGA	Cam GMA	80G	5400	Combo	Intel 5100 ²⁸	None	2G Turbo	7-in-1		6	Bus 32	W	Sep 08
⚡	7439-E2U	T9400	2.53	1GB	14.1" WXGA	Cam GMA	80G	5400	Combo	⚡Intel 5100	None	2G Turbo	7-in-1		6	Bus 32	W	Aug 08
	7439-E3U	T9400	2.53	1GB	14.1" WXGA	Cam GMA	160G	5400	DVD±RW	⚡Intel 5100	None	2G Turbo	7-in-1	Fing	6	Bus 32	W	Aug 08
	7439-E4U	T9400	2.53	2GB	14.1" WXGA+	Cam GMA	160G	7200	DVD±RW	⚡Intel 5100	None	2G Turbo	7-in-1	Fing	9	Bus 32	W	Aug 08
	7439-E5U	P8600	2.40	2GB	14.1" WXGA	Cam GMA	160G	5400	DVD±RW	⚡Intel 5100	None		7-in-1		6	Bus 32	W	Dec 08
📺	7439-E9U	P8700	2.53	2GB	14.1" WXGA	Cam GMA	250G	5400	DVD±RW	⚡Intel 5100	None		7-in-1	Fing	6	Bus 32		Mar 09
📺	7439-EAU	T9600	2.80	3GB	14.1" WXGA	Cam GMA	160G	7200	DVD±RW	⚡Intel 5100	None		7-in-1	Fing	6	Bus 32		Mar 09

• These models have an EasyServ™, 19 depot repair service 3-year limited warranty

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Mainstream business performance; two spindles Intel® Celeron® Processor 585 with single-core, 667MHz system bus, and 1MB L2 cache Intel Core™ 2 Duo processor P8600, P8700, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600/P8700: 3MB L2 cache; T9400/T9600: 6MB L2 cache										Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 - Vista Premium logo Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)				
Memory	1GB, 2GB, or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available														
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB ⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock Maximum external resolution: 2048x1536@75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2-1.4"; 335.5 x 238mm x 31-35mm 6-cell: starting at 5.42 lb (2.46kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 5 hr; 6-cell plus Ultrabay battery: up to 6.5 hr; 9-cell: up to 7.5 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54)										Supports ThinkVantage® technologies				
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	None None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None <i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus™. 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - EasyServ™. 19 depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM ThinkPad Advanced Mini Dock Other accessories on O-R400 sheet	55Y3706 55Y3707 250410U ThinkPad Battery 33 (4-cell) ThinkPad Battery 33+ (6-cell) ThinkPad Battery 33++ (9-cell) Other accessories at lenovo.com/accessories										41U3196 41U3198 43R2499				

See footnotes for important warranty information

• Intel Centrino® 2 processor technology

US models announced March 24, 2009; previous models on Aug 5, Sep 30, or December 2, 2008

US models withdrawn effective August 2009

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(LAG3-4) April 2009

Memory

1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann	03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann	03/17/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

Ultrabay Slim 9.5mm⁴⁸

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
DVD-ROM Ultrabay Slim SATA 1.5Gb/s	43N3212	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s	43N3214	ann	08/05/08

⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Ultrabay Enhanced 12.7mm

DVD-ROM Ultrabay Enhanced SATA 1.5Gb/s	43R9147	ann	08/05/08
DVD Burner Ultrabay Enh SATA 1.5Gb/s	43R9149	ann	08/05/08
Blu-ray™ Burner Ultrabay Enh SATA 1.5Gb/s	43R9150	ann	08/05/08

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann	06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III* 43N3412 in the Ultrabay

USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad T400/T410/R400 Privacy Filter	43R2472	ann	08/05/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 33 (4-cell)	41U3196	ann	05/09/07
ThinkPad Battery 33+ (6-cell)	41U3198	ann	05/09/07
ThinkPad Battery 33++ (9-cell)	43R2499	ann	03/04/08
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann	08/25/09

⁴³ Used in Ultrabay Slim bay.

ThinkPad External Battery Charger⁴⁴ 40Y7625 ann 09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter⁴⁵ 40Y7696 ann 01/05/06

⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter 40Y7659 ann 09/20/05

90W Ultralim AC/DC Combo Adapter 41R4493 ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve 57Y4294 ann 03/16/10

Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 15.6" widescreen models:

Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories

www.lenovo.com/support/notebookaccessories

www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad R500



ThinkPad Battery 41++ (9-cell)
40Y6797



Lenovo ThinkPad R500



Lenovo USB Fingerprint Keyboard
73P4730



Lenovo ThinkPad R500



Lenovo Essential Notebook Stand
45J9292

ThinkPad® R500 2714 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Avail
2714-AFU	T6670	2.20	2GB	15.4" WXGA	Cam	GMA	250G 5400	DVD±RW	11n ²⁸	None	Finger	Blue	6	XP Pro No Oct 09

• This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor T6670 with dual-core , Intel HD Boost, 800MHz system bus, and 2MB L2 cache		Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available;		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 250GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536 @ 75Hz</i>		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm		
Weight ²	6-cell: starting at 6.4 lb (2.93kg)		
Case color	black		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced		
Battery - life ¹⁰	6-cell: up to 4.5 hr; 6-cell plus Ultrabay battery: up to 6.0 hr; 9-cell: up to 7.1 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)		
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)		
PC Card	One slot (Type I, Type II), CardBus 32-bit		
Smart Card Read	None		
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express	Two Mini PCI Express slots		
11n ²⁸	11b/g/n wireless, Mini-PCIe Adapter II		
WWAN	None		
2G Turbo	None		
UWB	None		
Modem	56K V.92 ⁶ modem		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US model announced October 22, 2009

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(WKK3-8) October 2009

ThinkPad® R500 2717 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Bat- tery Blue- tooth cells	Workhorse (W) Global (G) Avail
2717-ASU	T6670	2.20	3GB	15.4" WXGA	Cam	GMA	320G 5400	DVD±RW	11n ²⁸	None	Finger	Blue 6	XP Pro No Oct 09
2717-ATU	P8700	2.53	2GB	15.4" WXGA	Cam	GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	Finger	Blue 6	XP Pro No Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor T6670 with dual-core, Intel HD Boost, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32		
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available;										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 250GB⁸ (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm <i>6-cell:</i> starting at 6.4 lb (2.93kg) black Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 4.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.0 hr; <i>9-cell:</i> up to 7.1 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit										Supports ThinkVantage® technologies		
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Security Security chip Fingerprint reader Limited warranty ¹²	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for important warranty information
US models announced October 22, 2009

Intel Centrino® 2 processor technology

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(WKK3-7) October 2009

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Avail date
2716-EBU	Cel 575	2.00	2GB	15.4" WXGA	Cam	GMA	160G 5400	DVD±RW	Intel 5100 ²⁸	None	Finger	Blue	9	Bus 32 Sep 08
2716-3KU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	Combo	Intel 5100	None	Finger	Blue	6	Bus 32 G Aug 08
2716-3LU	T9400	2.53	1GB	15.4" WXGA		GMA	160G 5400	DVD±RW	Intel 5100	None	Finger	Blue	6	Bus 32 W G Aug 08
2716-3MU	T9400	2.53	2GB	15.4" WXGA	Cam	GMA	160G 5400	DVD±RW	Intel 5100	None	Finger	Blue	9	Bus 32 W G Aug 08
2716-6JU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	Combo	Intel 5100	None	Finger	Blue	6	XP Pro G Sep 08
2716-6LU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	DVD±RW	Intel 5100	None	Finger	Blue	6	XP Pro G Sep 08

• These models have a depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Celeron® Processor 575 with single-core, 667MHz system bus, and 1MB L2 cache Intel Core™ 2 Duo processor P8400 or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache	Preloaded operating system ²⁰ - <i>Some</i> : Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista Business 32 - <i>Some</i> : Genuine Windows Vista Business 32 ✧ <i>Vista models</i> : Vista Premium logo Preloaded applications ¹⁴ (all OSes; only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (combo, DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (combo, DVD±RW)
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in one socket; one socket available	
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some</i> : DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some</i> : DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB ⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution</i> : 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm <i>6-cell</i> : starting at 6.4 lb (2.93kg) black PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell</i> : up to 4.5 hr; <i>6-cell plus Ultrabay battery</i> : up to 6.0 hr; <i>9-cell</i> : up to 7.1 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit	
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5100 ²⁸ 2G Turbo WWAN UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None None 56K V.92 ⁶ modem <i>Some</i> : Bluetooth 2.1 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some</i> : Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

Ⓢ US model announced September 30, 2008; previous models on August 5 or September 2, 2008

Ⓢ US models withdrawn effective August or October 2009

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(WKK3-2) September 2008

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Whorse (W) Gbl (G) GMP (P)	Avail date
2718-3KU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	Combo	Intel 5100 ²⁸	None	Finger	Blue	6	Bus 32	G P	Aug 08
2718-3LU	T9400	2.53	1GB	15.4" WXGA		GMA	160G 5400	DVD±RW	Intel 5100	None	Finger	Blue	6	Bus 32	W G P	Aug 08
2718-3MU	T9400	2.53	2GB	15.4" WXGA	Cam	GMA	160G 5400	DVD±RW	Intel 5100	None	Finger	Blue	9	Bus 32	W G P	Aug 08
2718-6LU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	DVD±RW	Intel 5100	None			6	XP Pro	G P	Sep 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor P8400 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400: 3MB L2 cache; T9400: 6MB L2 cache		Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ✧ Vista models: Vista Premium logo Preloaded applications ¹⁴ (all OSes, only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA Combo	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148)		
SATA DVD±RW	Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)		
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high		
SATA disk	80GB ⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm		
Weight ²	6-cell: starting at 6.4 lb (2.93kg)		
Case color	black		
Case material	PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Enhanced		
Battery - life ¹⁰	6-cell: up to 4.5 hr; 6-cell plus Ultrabay battery: up to 6.0 hr; 9-cell: up to 7.1 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)		
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)		
PC Card	One slot (Type I, Type II), CardBus 32-bit		
Smart Card Read	None		
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express	Two Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
2G Turbo	None		
WWAN	None		
UWB	None		
Modem	56K V.92 ⁶ modem		
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator		
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
Supports ThinkVantage® technologies			
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
ThinkPlus™. ²² 4-year LOR 9x5 NBD 45K6038			
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

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US models announced on August 5 or September 2, 2008

(WKK3-3) September 2008

✦ US models withdrawn effective August 2009

ThinkPad® R500 2716 (Education) - EasyServ

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Avail date
2716-ECU	Cel 575	2.00	1GB	15.4" WXGA	Cam	GMA 80G	5400	Combo	Intel 5100 ²⁸	None	Finger	Blue	6	Bus 32 No Sep 08
2716-5PU	P8400	2.26	1GB	15.4" WXGA	Cam	GMA 80G	5400	Combo	Intel 5100	None	Finger	Blue	6	Bus 32 No Aug 08
2716-5QU	T9400	2.53	2GB	15.4" WXGA	Cam	GMA 160G	5400	DVD±RW	Intel 5100	None	Finger	Blue	6	Bus 32 No Aug 08
2716-8SU	P8600	2.40	2GB	15.4" WXGA	Cam	GMA 160G	7200	DVD±RW	Intel 5100	None	Finger	Blue	6	Ult 32 No Feb 09
2716-8YU	Cel T1600	1.66	1GB	15.4" WXGA	Cam	GMA 160G	5400	Combo	Intel 5100	None	Finger	Blue	6	Bus 32 No Mar 09
2716-8ZU	P8700	2.53	2GB	15.4" WXGA	Cam	GMA 250G	5400	DVD±RW	Intel 5100	None	Finger	Blue	6	Bus 32 No Mar 09

- **These models have a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	Mainstream business performance; two spindles Intel® Celeron® Processor 575 with single-core, 667MHz system bus, and 1MB L2 cache or Intel Celeron Processor T1600 with dual-core, 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8400/P8600/P8700: 3MB L2 cache; T9400: 6MB L2 cache</i>										Preloaded operating system²⁰ - Some: Genuine Windows® Vista® Business 32 - Some: Genuine Windows Vista Ultimate 32 ◇ Vista Premium logo Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Supports ThinkVantage® technologies			
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm <i>6-cell:</i> starting at 6.4 lb (2.93kg) <i>Color:</i> black; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 4.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.0 hr; <i>9-cell:</i> up to 7.1 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One ExpressCard/34 or ExpressCard/54 One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express Intel 5100 ²⁸ 2G Turbo WWAN UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

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Ⓜ US models announced March 24, 2009; previous models on August 5, September 30, 2008 or February 17, 2009

(WKK3-4) April 2009

Ⓜ US models withdrawn effective August 2009, February 2010, or March 2010

Memory

1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann	03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann	03/17/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

Ultrabay Slim 9.5mm⁴⁸

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
DVD-ROM Ultrabay Slim SATA 1.5Gb/s	43N3212	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s	43N3214	ann	08/05/08

⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Ultrabay Enhanced 12.7mm

DVD-ROM Ultrabay Enhanced SATA 1.5Gb/s	43R9147	ann	08/05/08
DVD Burner Ultrabay Enh SATA 1.5Gb/s	43R9149	ann	08/05/08
Blu-ray™ Burner Ultrabay Enh SATA 1.5Gb/s	43R9150	ann	08/05/08

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann	06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III* 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
T500/R500/W500 Series 15W Privacy Filter	43R2474	ann	08/05/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 41+ (6-cell)	40Y6799	ann	01/05/06
ThinkPad Battery 41++ (9-cell)	40Y6797	ann	09/20/05
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann	08/25/09

⁴³ Used in Ultrabay Slim bay.

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
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⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad L412



Lenovo ThinkPad L412 with
ThinkPad Battery 55++ (9-cell)
57Y4186



Lenovo ThinkPad L412



Lenovo ThinkPad L412



Lenovo ThinkPad L412



Lenovo ThinkPad L412

ThinkPad® L412 4403 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4403-32U	i3-350M	2.26	2GB	14.0" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	May 10

- This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		Supports ThinkVantage® technologies
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys		65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm		
Weight ²	4-cell: from 4.93 lb (2.24kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.46 lb (2.48kg)		ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Case color	black		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	4-cell: up to 2.7 hr; 6-cell: up to 4.7 hr; 9-cell: up to 7.6 hr		
Chipset	Mobile Intel HM55 Express Chipset		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card		
WWAN upg	Wireless WAN upgradable		
Modem	None		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Realtek® RTL8111DL Gigabit Network Connection		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US model announced May 11, 2010

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(DMD3-6) May 2010

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
4403-33U	i3-350M	2.26		2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	None		Blue	Pro 64	May 10
4403-34U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	None	Finger	Blue	Pro 64	May 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	Supports ThinkVantage® technologies
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None	65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 4.93 lb (2.24kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.46 lb (2.48kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.7 hr; 6-cell: up to 4.7 hr; 9-cell: up to 7.6 hr	ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	ThinkPlus 2-year LOR 9x5 NBD 45K5969
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Security Security chip Fingerprint reader		ThinkPlus 4-year LOR 9x5 NBD 45K5973
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	ThinkPlus 5-year LOR 9x5 NBD 45K5975
		ThinkPlus 2-year P&L P/U Depot 45K5971
		ThinkPlus 3-year P&L P/U Depot 45K5972
		ThinkPlus 4-year P&L P/U Depot 45K5974
		ThinkPlus 5-year P&L P/U Depot 45K5976
		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced May 11, 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4404-32U	i3-350M	2.26		2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 64	May 10
4404-33U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	6	Pro 64	May 10
4404-34U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Blue	6	Pro 64	May 10
4404-35U	i5-540M	2.53	3.06	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	May 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a depot repair service 3-year limited warranty**

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• ThinkVantage Toolbox• Adobe® Reader®• Skype™ for Windows• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys		Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm		
Weight ²	4-cell: from 4.93 lb (2.24kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.46 lb (2.48kg)		
Case color	black		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	4-cell: up to 2.7 hr; 6-cell: up to 4.7 hr; 9-cell: up to 7.6 hr		
Chipset	Mobile Intel HM55 Express Chipset		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
11b/g/n	<i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card		
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2		
WWAN upg	Wireless WAN upgradable		
Modem	None		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Realtek® RTL8111DL Gigabit Network Connection		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
 US models announced May 11, 2010

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Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
0530-52U	i3-330M	2.13	2GB	14.0" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None		6	XP Pro	Apr 10
0530-62U	i3-330M	2.13	2GB	14.0" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	Apr 10
Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache									Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) Supports ThinkVantage® technologies				
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys									65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	None													
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm													
Weight ²	4-cell: from 4.93 lb (2.24kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.46 lb (2.48kg)													
Case color	black													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell													
Battery - life ¹⁰	4-cell: up to 2.7 hr; 6-cell: up to 4.7 hr; 9-cell: up to 7.6 hr									ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968				
Chipset	Mobile Intel HM55 Express Chipset									ThinkPlus 2-year LOR 9x5 NBD 45K5969				
ExpressCard/34	One slot (ExpressCard/34)													
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)									ThinkPlus 3-year LOR 9x5 NBD 45K5970				
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)									ThinkPlus 4-year LOR 9x5 NBD 45K5973				
PCIe Mini Card	Two PCI Express Mini Card slots									ThinkPlus 5-year LOR 9x5 NBD 45K5975				
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card													
WWAN upg	Wireless WAN upgradable									ThinkPlus 2-year P&L P/U Depot 45K5971				
Modem	None													
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator									ThinkPlus 3-year P&L P/U Depot 45K5972				
Ethernet	Realtek® RTL8111DL Gigabit Network Connection													
Intel AMT	None									ThinkPlus 4-year P&L P/U Depot 45K5974				
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack									ThinkPlus 5-year P&L P/U Depot 45K5976				
Security	Power-on password, hard disk password, supervisor password, security keyhole									Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	None													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced April 20, 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
0530-63U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	None	Blue	Pro 32	Apr 10

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None										Supports ThinkVantage® technologies			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 4.93 lb (2.24kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.46 lb (2.48kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.7 hr; 6-cell: up to 4.7 hr; 9-cell: up to 7.6 hr										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at			
PCIe Mini Card Intel 6200 ²⁸ Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPPA, GPS, contract required with service provider													
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	AT&T®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None													
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available														
lenovo.com/thinkplus/warranty														

See footnotes for important warranty information
US model announced April 20, 2010

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Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
0553-6SU	i3-330M	2.13	2GB	14.0" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	Apr 10

• This model has a depot repair service 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache									Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available									Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • ThinkVantage Productivity Center • ThinkVantage System Update • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 4.93 lb (2.24kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.46 lb (2.48kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.7 hr; 6-cell: up to 4.7 hr; 9-cell: up to 7.6 hr									Supports ThinkVantage® technologies				
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)									65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None									ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US model announced April 20, 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Whorse (W) Gbl (G) Educ	Avail date
0553-35U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000	Verizon ¹⁶	Finger	Blue	Pro 32		Apr 10
0553-36U	i5-540M	2.53	3.06	4GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	Verizon	Finger	Blue	Pro 64		Apr 10
0553-42U	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg			Blue	Pro 32	W G	Apr 10
0553-43U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	Pro 32	W G	Apr 10
0553-44U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 32	W G	Apr 10
0553-55U	i5-520M	2.40	2.93	2GB	14.0" HD		250G 5400	Intel 6200	WWAN upg			Blue	Pro 32		Apr 10
0553-56U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³	Finger	Blue	Pro 32		Apr 10
0553-57U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	160G 7200	Intel 6200	Gobi 2000	Verizon	Finger	Blue	Pro 32		Apr 10
0553-58U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg			Blue	Pro 32	Edu	Apr 10
0553-59U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T	Finger	Blue	Pro 32	Edu	Apr 10
0553-6TU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	Gobi 2000	AT&T		Blue	Pro 32		Apr 10

• These models have a depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Some: Education software - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Camera	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Integrated graphics	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch ThinkLight™														
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch ThinkLight™														
TrackPoint®	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch ThinkLight™														
Touch pad	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch ThinkLight™														
ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch ThinkLight™														
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm														
Weight ²	4-cell: from 4.93 lb (2.24kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.46 lb (2.48kg)														
Case color	black														
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell														
Battery - life ¹⁰	4-cell: up to 2.7 hr; 6-cell: up to 4.7 hr; 9-cell: up to 7.6 hr														
Chipset	Mobile Intel HM55 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)														
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
11b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Intel 6200 ²⁸	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
WWAN upg	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier	<i>Some:</i> AT&T® or Verizon®, contract required with service provider														
Modem	None														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	Realtek® RTL8111DL Gigabit Network Connection														
Intel AMT	None														
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information

US models announced April 20, 2010; previous models on April 6, 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
0585-42U	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg		Blue	Pro 32	W G P	Apr 10
0585-43U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	Pro 32	W G P	Apr 10
0585-44U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	Pro 32	W G P	Apr 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Camera		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	None	
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm	
Weight ²	4-cell: from 4.93 lb (2.24kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.46 lb (2.48kg)	
Case color	black	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 6-cell	
Battery - life ¹⁰	4-cell: up to 2.7 hr; 6-cell: up to 4.7 hr; 9-cell: up to 7.6 hr	
Chipset	Mobile Intel HM55 Express Chipset	
ExpressCard/34	One slot (ExpressCard/34)	
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)	
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card 11b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card	
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2	
WWAN upg	Wireless WAN upgradable	
Modem	None	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Realtek® RTL8111DL Gigabit Network Connection	
Intel AMT	None	
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years /1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	
		Supports ThinkVantage® technologies
		65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
		ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 45K6038
		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced April 20, 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09
1GB PC3-10600 DDR3 L-H SODIMM	55Y3709	ann	03/02/10
1GB PC3-10600 DDR3 L-H SODIMM (25-Pack)	55Y4415	ann	03/02/10
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann	03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25-Pack)	55Y4416	ann	03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann	03/02/10

Storage and removable storage

SL410/510 500GB 5400rpm Hard Drive	43N3422	ann	10/22/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann	01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann	01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad Port Replicator Series 3	433610W	ann	06/23/09
ThinkPad Mini Dock Series 3 ⁶¹	433710U	ann	06/23/09
⁶¹ When docked, ThinkPad Mini Dock Series 3 (433710U) Audio ports are inactive, ThinkPad Audio ports are active.			
ThinkPad Mini Dock Plus Series 3 ⁶¹	433810U	ann	06/23/09
⁶¹ When docked, ThinkPad Mini Dock Plus Series 3 (433810U) eSATA & Audio ports are inactive, ThinkPad eSATA & Audio ports are active.			
ThinkPad Mini Dock Plus Series 3 - Mobile WS	433820U	ann	01/07/10

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
UltraSlim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Batteries

ThinkPad Battery 55+ (6-cell)	57Y4185	ann	03/30/10
ThinkPad Battery 55++ (9-cell)	57Y4186	ann	03/30/10
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W UltraSlim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters*Charging tips for 90W UltraSlim AC/DC Combo Adapter 41R4493*

•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com**Carrying Cases**

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com**Monitors**

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security
Other accessories at www.lenovo.com/accessories
Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad L512



Lenovo ThinkPad L512 with
ThinkPad Battery 55++ (9-cell)
57Y4186



Lenovo ThinkPad L512



Lenovo ThinkPad L512



Lenovo ThinkPad L512



Lenovo ThinkPad L512

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4444-32U	i3-350M	2.26		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 32	May 10
4444-33U	i3-350M	2.26		2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	6	Pro 64	May 10
4444-34U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	May 10
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies			
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	None													
Dimensions ³	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm													
Weight ²	4-cell: from 5.49 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.02 lb (2.73kg)													
Case color	black													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell													
Battery - life ¹⁰	4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.3 hr													
Chipset	Mobile Intel HM55 Express Chipset													
ExpressCard/34	One slot (ExpressCard/34)													
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)													
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
11b/g/n	Wireless WAN upgradable													
Intel 6200 ²⁸	None													
WWAN upg	Bluetooth 2.1 wireless, LED indicator													
Modem	Realtek® RTL8111DL Gigabit Network Connection													
Bluetooth™	None													
Ethernet	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack													
Intel AMT	Power-on password, hard disk password, supervisor password, security keyhole													
Audio support	Trusted Platform Module, TCG 1.2-compliant													
Security	Some: UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip													
Security chip	Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available													
Fingerprint reader														
Limited warranty ¹²														

See footnotes for important warranty information
 US models announced May 11, 2010

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ThinkPad® L512 4447 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4447-32U	i3-350M	2.26		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 32	May 10
4447-33U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	6	Pro 64	May 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	None													
Dimensions ³	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm													
Weight ²	4-cell: from 5.49 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.02 lb (2.73kg)													
Case color	black													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell													
Battery - life ¹⁰	4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.3 hr													
Chipset	Mobile Intel HM55 Express Chipset													
ExpressCard/34	One slot (ExpressCard/34)													
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)													
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
11b/g/n	Wireless WAN upgradable													
Intel 6200 ²⁸	None													
WWAN upg	None													
Modem	Bluetooth 2.1 wireless, LED indicator													
Bluetooth™	Realtek® RTL8111DL Gigabit Network Connection													
Ethernet	None													
Intel AMT	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack													
Audio support	Power-on password, hard disk password, supervisor password, security keyhole													
Security	Trusted Platform Module, TCG 1.2-compliant													
Security chip	<i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip													
Fingerprint reader	Some: UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced May 11, 2010

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Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
2597-5XU	i3-330M	2.13	2GB	15.6" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	Apr 10
											Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) Supports ThinkVantage® technologies			
Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache													
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None									65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>15.6W"</i> (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.49 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.02 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 4.5 hr; <i>9-cell:</i> up to 7.3 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None									ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US model announced April 20, 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
2597-5YU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	None	Blue	Pro 32	Apr 10
Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys										Supports ThinkVantage® technologies			
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	None													
Dimensions ³	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm													
Weight ²	4-cell: from 5.49 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.02 lb (2.73kg)													
Case color	black													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell													
Battery - life ¹⁰	4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.3 hr													
Chipset	Mobile Intel HM55 Express Chipset										ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968			
ExpressCard/34	One slot (ExpressCard/34)										ThinkPlus 2-year LOR 9x5 NBD 45K5969			
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)										ThinkPlus 3-year LOR 9x5 NBD 45K5970			
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus 4-year LOR 9x5 NBD 45K5973			
PCIe Mini Card	Two PCI Express Mini Card slots										ThinkPlus 5-year LOR 9x5 NBD 45K5975			
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2										ThinkPlus 2-year P&L P/U Depot 45K5971			
Gobi™ 2000	Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										ThinkPlus 3-year P&L P/U Depot 45K5972			
Carrier	AT&T®, contract required with service provider										ThinkPlus 4-year P&L P/U Depot 45K5974			
Modem	None										ThinkPlus 5-year P&L P/U Depot 45K5976			
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										Post-warranty annual maintenance agreements at			
Ethernet	Realtek® RTL8111DL Gigabit Network Connection										lenovo.com/thinkplus/warranty			
Intel AMT	None													
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	None													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US model announced April 20, 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Whorse (W) Gbl (G) Educ	Avail date
2598-34U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000	Verizon ¹⁶			Pro 32		Apr 10
2598-35U	i5-520M	2.40	2.93	4GB	15.6" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	Verizon	Finger	Blue	Pro 64		Apr 10
2598-42U	i5-520M	2.40	2.93	2GB	15.6" HD		250G 5400	11b/g/n	WWAN upg			Blue	Pro 32	W G	Apr 10
2598-43U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	Pro 32	W G	Apr 10
2598-44U	i5-540M	2.53	3.06	3GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 32	W G	Apr 10
2598-52U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg			Blue	Pro 32		Apr 10
2598-53U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	Gobi 2000	AT&T ²³		Blue	Pro 32		Apr 10
2598-54U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	11b/g/n	WWAN upg			Blue	Pro 32	Edu	Apr 10
2598-55U	i5-540M	2.53	3.06	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	Pro 32	Edu	Apr 10
2598-6NU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64	W G	May 10

• These models have a depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Some: Education software - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
SATA DVD±RW disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
Widescreen display	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Camera	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)														
Integrated graphics	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None														
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None														
TrackPoint®	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None														
Touchpad	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None														
ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None														
Dimensions ³	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm														
Weight ²	4-cell: from 5.49 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.02 lb (2.73kg)														
Case color	black														
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell														
Battery - life ¹⁰	4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.3 hr														
Chipset	Mobile Intel HM55 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)														
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
11b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Intel 6200 ²⁸	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
WWAN upg	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Modem	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Bluetooth™	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Ethernet	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Intel AMT	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Security	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Security chip	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Fingerprint reader	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information

US model announced May 11, 2010; previous models on April 6 or April 20, 2010

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(RUB3-1) May 2010

ThinkPad® L512 2550 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Preload	Whorse (W) Gbl (G) Educ	Avail date
2550-42U	i5-520M	2.40	2.93	2GB	15.6" HD		250G 5400	11b/g/n	WWAN upg		Blue	Pro 32	W G P	Apr 10
2550-43U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	Pro 32	W G P	Apr 10
2550-44U	i5-540M	2.53	3.06	3GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	Pro 32	W G P	Apr 10
2550-6NU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	Pro 64	W G P	May 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.49 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.02 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 4.5 hr; <i>9-cell:</i> up to 7.3 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available													

See footnotes for important warranty information

US model announced May 11, 2010; previous models on April 20, 2010

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(RUB3-4) May 2010

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09
1GB PC3-10600 DDR3 L-H SODIMM	55Y3709	ann	03/02/10
1GB PC3-10600 DDR3 L-H SODIMM (25-Pack)	55Y4415	ann	03/02/10
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann	03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25-Pack)	55Y4416	ann	03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann	03/02/10

Storage and removable storage

SL410/510 500GB 5400rpm Hard Drive	43N3422	ann	10/22/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann	01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann	01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad Port Replicator Series 3	433610W	ann	06/23/09
ThinkPad Mini Dock Series 3 ⁶¹	433710U	ann	06/23/09

⁶¹ When docked, ThinkPad Mini Dock Series 3 (433710U) Audio ports are inactive, ThinkPad Audio ports are active.

ThinkPad Mini Dock Plus Series 3 ⁶¹	433810U	ann	06/23/09
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⁶¹ When docked, ThinkPad Mini Dock Plus Series 3 (433810U) eSATA & Audio ports are inactive, ThinkPad eSATA & Audio ports are active.

ThinkPad Mini Dock Plus Series 3 - Mobile WS	433820U	ann	01/07/10
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Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
UltraSlim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Batteries

ThinkPad Battery 55+ (6-cell)	57Y4185	ann	03/30/10
ThinkPad Battery 55++ (9-cell)	57Y4186	ann	03/30/10
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W UltraSlim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters*Charging tips for 90W UltraSlim AC/DC Combo Adapter 41R4493*

•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com**Carrying Cases***Up to 15.4" widescreen models:*

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
ThinkPad Business Backpack	43R2482	ann	05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com**Monitors**

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

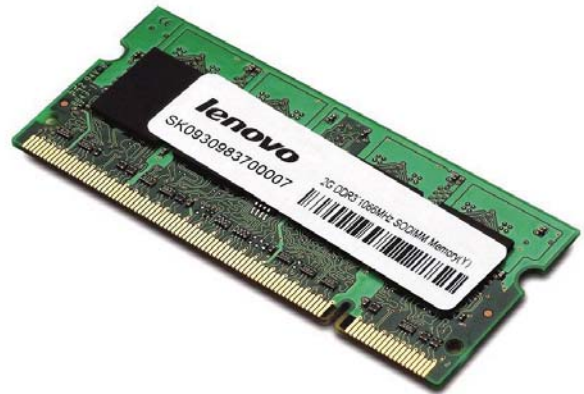
⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security
Other accessories at www.lenovo.com/accessories
Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad T400



PC3-8500 DDR3 Low-Halogen SODIMM
1GB 55Y3706
2GB 55Y3707
4GB 55Y3708



Lenovo ThinkPad T400 with
ThinkPad T400/T410/R400 Privacy Filter
43R2472



Lenovo ThinkPad T400



Lenovo ThinkPad T400



Lenovo ThinkPad T400

ThinkPad® T400 6473 (GMA) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date
6473-41U	P8700	2.53	2GB	14.1" WXGA	LED	Cam	GMA	320G 7200	DVD±RW	Intel 5100 ²⁸	None	None	Finger	Blue	PC	XP Pro	Oct 09
6473-43U	P8700	2.53	2GB	14.1" WXGA	LED	Cam	GMA	128G SSD	DVD±RW	Intel 5100	None	None	Finger	Blue	PC	XP Pro	Oct 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable		
SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive		
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm		
Weight ²	<i>6-cell:</i> starting at 5.0 lb (2.3kg)		
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	<i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)		
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)		
PC Card	One slot (Type I, Type II), CardBus 32-bit		
Smart Card Read	None		
Multicard Reader	None		
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express	Three Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
WWAN upg	None		
2G Turbo	None		
UWB	None		
Modem	56K V.92 ⁶ modem		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021
ThinkPlus 4-year LOR 9x5 NBD 45K6022
ThinkPlus 5-year LOR 9x5 NBD 45K6024
ThinkPlus 4-year P&L P/U Depot 45K6023
ThinkPlus 5-year P&L P/U Depot 45K6025
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced October 22, 2009

Intel Centrino® 2 processor technology

© Lenovo
(ML3-17) October 2009

ThinkPad® T400 6473 (GMA) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date
6473-4FU	P8700	2.53	2GB	14.1"	WXGA	LED	Cam	GMA 320G 7200	DVD±RW	Intel 5100 ²⁸			None	Finger	Blue PC	Pro 32	Oct 09
6473-5BU	P8700	2.53	2GB	14.1"	WXGA	LED	Cam	GMA 320G 7200	DVD±RW	Intel 5100	Verizon ¹⁶	None	Finger	Blue PC	Pro 32	Nov 09	

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32						
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)						
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™																
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio																
Camera	Camera on top of screen, 1.3-megapixel, fixed focus																
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz																
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys																
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label																
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm																
Weight ²	6-cell: starting at 5.0 lb (2.3kg)																
Case material	Top: Super-Elastic Polycarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic																
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim																
Battery - life ¹⁰	6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr																
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit																
ExpressCard/54	One slot (Type I, Type II), CardBus 32-bit																
PC Card	One slot (Type I, Type II), CardBus 32-bit																
Smart Card Read	None																
Multicard Reader	None																
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																
Mini PCI Express	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon®																
Intel 5100 ²⁸																	
Verizon ¹⁶																	
2G Turbo	None																
UWB	None																
Modem	56K V.92 ⁶ modem																
Bluetooth™	Bluetooth 2.1 wireless, LED indicator																
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1																
Intel AMT	None																
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack																
Security	Power-on password, hard disk password, supervisor password, security keyhole																
Security chip	4FU model: Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant																
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip																
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																

See footnotes for important warranty information

⚡ Intel Centrino® 2 processor technology

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⚡ US model announced November 3, 2009; previous model on October 22, 2009

(ML3-18) March 2010

ThinkPad® T400 7417 (GMA) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-Card tooth slot	Pre- load	Avail date
7417-21U	P8600	2.40	2GB	14.1" WXGA	LED		GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Fing	PC	XP Pro	Oct 09
7417-23U	P8600	2.40	2GB	14.1" WXGA	LED	Cam	GMA	320G 5400	DVD±RW	Intel 5100	None	None	Fing	Blue PC	XP Pro	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 250GB ⁸ (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA DB-15)	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	ThinkPlus™. 22 1-year LOR ²⁴ 9x5 NBD 45K5968
ExpressCard/54 PC Card	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit	ThinkPlus 2-year LOR 9x5 NBD 45K5969
Smart Card read Multicard reader Ports	None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Mini PCI Express	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	ThinkPlus 4-year LOR 9x5 NBD 45K5973
Intel 5100 ²⁸ WWAN upg 2G Turbo UWB	None None None None	ThinkPlus 5-year LOR 9x5 NBD 45K5975
Modem	56K V.92 ⁶ modem	ThinkPlus 2-year P&L P/U Depot 45K5971
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator	ThinkPlus 3-year P&L P/U Depot 45K5972
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1	ThinkPlus 4-year P&L P/U Depot 45K5974
Intel AMT	None	ThinkPlus 5-year P&L P/U Depot 45K5976
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced October 22, 2009

✚ Intel Centrino® 2 processor technology

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(ML3-19) October 2009

ThinkPad® T400 7417 (GMA) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Pre- load	Avail date
7417-22U	P8600	2.40	2GB	14.1" WXGA	LED		GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Fing	None	PC Pro 32	Oct 09	
7417-31U	P8700	2.53	2GB	14.1" WXGA	LED	Cam	GMA	250G 5400	DVD±RW	WiMAX	None	None	None	None	PC Pro 32	Nov 09	

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8600 or P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• ThinkVantage Toolbox• Lenovo Online Data Backup• Skype™ for Windows• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 250GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus		
Camera			Supports ThinkVantage® technologies
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA DB-15)		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm		
Weight ²	6-cell: starting at 5.0 lb (2.3kg)		
Case color	Black		
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)		
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)		
PC Card	One slot (Type I, Type II), CardBus 32-bit		
Smart Card read	None		
Multicard reader	None		
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express	Three Mini PCI Express slots		
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)		
WWAN upg	None		
2G Turbo	None		
UWB	None		
Modem	56K V.92 ⁶ modem		
Bluetooth™	None		
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	22U model: Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information

Intel Centrino® 2 processor technology

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US model announced November 3, 2009; previous model on October 22, 2009

(ML3-20) November 2009

ThinkPad® T400 2765 (Switchable) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo slot	Card slot	Pre- load	Avail date
2765-81U	P8700	2.53	3GB	14.1" WXGA+	LED	Cam	GMA, HD 3470	320G 7200	DVD±RW	Intel 5100 ²⁸		None	PC	XP Pro	Oct 09
2765-82U	P8700	2.53	3GB	14.1" WXGA+		Cam	GMA, HD 3470	320G 7200	DVD±RW	Intel 5100	AT&T ²³	None	PC	XP Pro	Oct 09
2765-83U	T9600	2.80	4GB	14.1" WXGA+	LED	Cam	GMA, HD 3470	320G 7200	DVD±RW	Intel 5100		None	PC	XP Pro	Oct 09
2765-94U	P8700	2.53	3GB	14.1" WXGA+		Cam	GMA, HD 3470	320G 7200	DVD±RW	Intel 5100	WWAN upg	None	PC	XP Pro	Nov 09
2765-95U	T9600	2.80	4GB	14.1" WXGA+		Cam	GMA, HD 3470	320G 7200	DVD±RW	Intel 5100	WWAN upg	None	PC	XP Pro	Nov 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8700 or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8700:</i> 3MB L2 cache; <i>T9600:</i> 6MB L2 cache		Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Switchable graphics	Switches between discrete and integrated graphics (Windows 7 only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)		Supports ThinkVantage® technologies 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>9-cell:</i> starting at 5.4 lb (2.4kg) <i>Top:</i> Super-Elastic Polycarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 9.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 11.3 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit		
ExpressCard/54 PC Card Smart Card Reader Multicard Reader Ports	None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with <u>AT&T</u>		
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™. ¹⁹ depot repair service / service upgrades ²² available		

See footnotes for important warranty information
 ⚡ Intel Centrino® 2 processor technology
 ⚡ US models announced November 3, 2009; previous models on October 22, 2009

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(ML3-16) March 2010

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Inte- grated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/Car- d slot	Whorse (W) Pre- Gbl (G) Avail load date
6474-11U P8400 2.26 1GB 14.1" WXGA						GMA 80G 5400 Combo	Intel 5100 ²⁸		WWAN upg			6 Yes PC B32 G Aug 08	
⌘ 6474-R1U P8400 2.26 2GB 14.1" WXGA					Cam	GMA 160G 5400 Combo	Intel 5100		WWAN upg			6 Yes 7-in-1 B32 WG Aug 08	
6474-R2U T9400 2.53 2GB 14.1" WXGA					Cam	GMA 160G 7200 DVD±RW	Intel 5100		WWAN upg	2G Turbo		9 Yes PC B32 WG Aug 08	
6474-R3U T9400 2.53 2GB 14.1" WXGA					Cam	GMA 160G 5400 DVD±RW	Intel 5100		Verizon ¹⁶			6 Yes 7-in-1 B32 W Aug 08	
6474-P1U T9400 2.53 2GB 14.1" WXGA						GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg			6 Yes PC XP G Sep 08	
⌘ 6474-P2U P8400 2.26 1GB 14.1" WXGA						GMA 80G 5400 Combo	Intel 5100		WWAN upg			6 Yes PC XP G Sep 08	
6474-T1U P8600 2.40 1GB 14.1" WXGA						GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg			6 Smart B32 TAA Oct 08	
⌘ 6474-44U P8400 2.26 3GB 14.1" WXGA					Cam	GMA 160G 5400 Combo	Intel 5100		WWAN upg			6 Yes 7-in-1 B32 WG Nov 08	
6474-45U T9400 2.53 3GB 14.1" WXGA					Cam	GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg			6 Yes PC B32 WG Nov 08	
6474-P8U P8600 2.40 2GB 14.1" WXGA						GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg			6 Yes PC B32 WG Dec 08	
6474-P9U P8600 2.40 2GB 14.1" WXGA+ LED						GMA 160G 7200 DVD±RW	Intel 5100		WWAN upg			9 Yes PC B32 WG Dec 08	
⌘ 6474-R8U P8600 2.40 3GB 14.1" WXGA LED						GMA 160G 7200 DVD±RW	Intel 5100		WWAN upg			6 Yes PC B32 Feb 09	
⌘ 6474-R9U P8600 2.40 2GB 14.1" WXGA LED						GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg			6 Yes PC B32 Feb 09	
US Govt (TAA) ⁵ Processor	T1U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2											Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ⌘ Vista models: Vista Premium logo	
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available												
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB ⁸ (5400 rpm) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)	
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, LED backlight, high brightness 680 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; Maximum external resolution: 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit Some: Smart Card reader Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											ThinkPlus™. 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports													
Mini PCI Express Intel 5100 ²⁸ WWAN upg Verizon ¹⁶	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon®											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Security Security chip Fingerprint reader													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available												

See footnotes for important warranty information

⌘ Intel Centrino® 2 with vPro™ technology

US models announced Aug 5, Sep 2, Oct 7, Nov 4, or Dec 2, 2008 or February 3, 2009

⌘ US models withdrawn effective August 2009, February 2010, or March 2010

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(ML3-3) March 2010

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Inte- grated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery Blue/ Card UWB or Turbo cells Fing	Whorse (W) Pre- Gbl (G) Avail load slot date
6474-56U	P8700	2.53	3GB	14.1" WXGA LED			GMA	80G SSD DVD±RW	✚Intel 5100 ²⁸	WWAN upg	None	6 Yes	PC B32 No Jun 09
6474-57U	P8700	2.53	2GB	14.1" WXGA LED			GMA	160G 5400 DVD±RW	✚Intel 5100	WWAN upg	None	6 Yes	PC B32 No Jun 09
✚ 6474-58U	P8400	2.26	2GB	14.1" WXGA LED		Cam	GMA	160G 5400 DVD±RW	✚Intel 5100	WWAN upg	None	6 Yes	PC B32 No Jul 09
✚ 6474-59U	P8700	2.53	2GB	14.1" WXGA LED		Cam	GMA	160G 5400 DVD±RW	11n ²⁸	WWAN upg	None	6 Yes	PC B32 No Jul 09

• These models have a depot repair service 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8400 or P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ✦ Vista Premium logo Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 80GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive		
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus		
Camera			
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536 @ 75Hz		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm		
Weight ²	6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg)		
Case color	Black		
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit		
ExpressCard/54	None		
PC Card	None		
Smart Card read	None		
Multicard reader	None		
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express	Three Mini PCI Express slots		
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
11n ²⁸	<i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II		
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wire		
2G Turbo	None		
UWB	None		
Modem	56K V.92 ⁶ modem		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	<i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information ✚ Intel Centrino® 2 with vPro™ technology

✚ US models announced July 7, 2009; previous models on June 2, 2009

✚ US model withdrawn effective March 2010

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(ML3-14) July 2009

ThinkPad® T400 2767 (Switchable)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Mem-ory	14.1" wide screen display	CCFL or Cam-LED era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat-tery	Card slot	Whorse (W) Gbl (G) Avail date
2767-11U	P8600	2.40	1GB	WXGA+		GMA, 3470	80G 5400	Combo	Intel 5100 ²⁸	WWAN upg		Yes 6 PC	B32	G Aug 08
2767-12U	P9400	2.53	2GB	WXGA+		GMA, 3470	160G 5400	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9	7-in-1	B32 W G Aug 08
2767-13U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	Verizon ¹⁶	2G Turbo	Yes 9	7-in-1	B32 W Aug 08
2767-14U	T9600	2.80	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9	7-in-1	B32 W Aug 08
2767-R2U	T9600	2.80	2GB	WXGA+	Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9	7-in-1	B64 Aug 08
2767-R9U	T9600	2.80	2GB	WXGA+	LED Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5100	Verizon	2G Turbo	Yes 9	7-in-1	B32 W Aug 08
2767-2GU	P8600	2.40	1GB	WXGA		GMA, 3470	160G 7200	Combo	Intel 5100	WWAN upg		6 Smart	B32 TAA	Aug 08
2767-2HU	P8600	2.40	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg		6 Smart	B32 TAA	Aug 08
2767-2JU	T9400	2.53	2GB	WXGA	Cam	GMA, 3470	250G 5400	DVD±RW	Intel 5100	WWAN upg		Yes 9	7-in-1	B32 W G Aug 08
2767-2NU	T9600	2.80	2GB	WXGA+	LED Cam	GMA, 3470	64G SSD	DVD±RW	Intel 5300 ²⁸	WWAN upg		Yes 9	PC B32	Sep 08
2767-P1U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9	PC XP	G Sep 08
2767-P6U	P8600	2.40	1GB	WXGA+		GMA, 3470	80G 5400	Combo	Intel 5100	WWAN upg		Yes 6	PC XP	G Sep 08
2767-P7U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 5400	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9	7-in-1	XP G Sep 08
<p>US Govt (TAA)⁵ Processor Intel® Core™ 2 Duo processor P8600, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600: 3MB L2 cache; T9400/T9600: 6MB L2 cache</p> <p>Memory 1GB or 2GB std / 8GB max⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics</i>: standard memory in both sockets; no sockets available; <i>Non-italics</i>: standard memory in one socket; one socket available</p> <p>SATA Combo SATA DVD±RW Ultrabay Slim SATA disk <i>Some</i>: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some</i>: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some</i>: 64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high; <i>Some</i>: 80GB⁸ (5400 rpm), 160GB⁸ (5400 or 7200 rpm), or 250GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All</i>: removable, upgradable, supports 2nd disk, shock mounted storage</p> <p>Widescreen display <i>Some</i>: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i>: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i>: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio</p> <p>Camera <i>Some</i>: camera on top of screen, 1.3-megapixel, fixed focus</p> <p>Switchable graphics Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3470, PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution</i>: 2048x1536 @ 75Hz (VGA)</p> <p>Keyboard 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys</p> <p>TrackPoint® TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p> <p>Touch pad UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label</p> <p>ThinkLight™ Illuminates the keyboard to improve visibility in low-light conditions</p> <p>Dimensions³ <i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm</p> <p>Weight² <i>6-cell</i>: starting at 5.0 lb (2.3kg); <i>9-cell</i>: starting at 5.4 lb (2.4kg)</p> <p>Case material <i>Top</i>: Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i>: Carbon-Fiber Reinforced Plastic</p> <p>Battery - type Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim</p> <p>Battery - life¹⁰ <i>6-cell</i>: up to 6.5 hr; <i>6-cell plus Ultrabay battery</i>: up to 8.0 hr; <i>9-cell</i>: up to 9.8 hr</p> <p>Chipset Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)</p> <p>ExpressCard slot One ExpressCard/34 or ExpressCard/54</p> <p>PC Card Std slot <i>Some</i>: One Type I or Type II slot, CardBus 32-bit</p> <p>Smart Card Reader <i>Some</i>: Smart Card Reader</p> <p>Multicard Reader <i>Some</i>: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)</p> <p>Ports Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p> <p>Mini PCI Express Three Mini PCI Express slots</p> <p>Intel 5100²⁸ <i>Some</i>: 11a/b/g/n wireless⁴, Mini PCIe adapter, Intel Wi-Fi Link 5100, 1x2 (Shirley Peak)</p> <p>Intel 5300²⁸ <i>Some</i>: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N Wi-Fi Link 5300, 3x3</p> <p>WWAN upg <i>Some</i>: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)</p> <p>Verizon¹⁶ <i>Some</i>: Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adpdr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon</p> <p>2G Turbo <i>Some</i>: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator</p> <p>UWB None</p> <p>Modem 56K V.92⁶ modem</p> <p>Bluetooth™ <i>Some</i>: Bluetooth 2.1 wireless, LED indicator</p> <p>Ethernet Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1</p> <p>Intel AMT Intel Active Management Technology (iAMT)</p> <p>Audio support High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack</p> <p>Security Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Security chip Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant</p> <p>Fingerprint reader <i>Some</i>: Fingerprint reader on palm rest, swipe sensor, supports the security chip</p> <p>Limited warranty¹² 3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available</p> <p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - <i>Some</i>: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some</i>: Genuine Windows Vista Business 32 - <i>Some</i>: Genuine Windows Vista Business 64 <p>◇ <i>Vista models</i>: Vista Premium logo</p> <p>Preloaded applications¹⁴ (all OSes; only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW) <p>Supports ThinkVantage® technologies</p> <p>90-watt (ATI graphics) AC adapter</p> <p>ThinkPad Roll Cage and Top Cover</p> <p>Roll Cage (one-piece magnesium)</p> <p>Climate Savers® certified</p> <p>EPEAT™ Gold rating (LED model)</p> <p>EPEAT Silver rating (other models)</p> <p>ENERGY STAR® 5.0-compliant</p> <p>RoHS-compliant</p> <p>International Warranty Service¹⁷</p> <p>24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p> <p>ThinkPlus™.22 3-year LOR²⁴ 9x5 NBD 45K6021</p> <p>ThinkPlus 4-year LOR 9x5 NBD 45K6022</p> <p>ThinkPlus 5-year LOR 9x5 NBD 45K6024</p> <p>ThinkPlus 4-year P&L P/U Depot 45K6023</p> <p>ThinkPlus 5-year P&L P/U Depot 45K6025</p> <p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>														

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

⚡ US models announced September 2, 2008; previous models on August 5, 2008

⚡ US models withdrawn effective August 2009 or February 2010

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(ML3-4) March 2010

ThinkPad® T400 2767 (Switchable) - October 2008

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- GHz	screen display	14.1" wide CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Card slot	Whorse (G)	Avail date
2767-31U	P8600	2.40	2GB WXGA		Cam	GMA, 3470	160G 7200	DVD±RW	❖ Intel 5300 ²⁸	WWAN upg		Yes	6	7-in-1	Bus32	WG Oct 08
❖ 2767-R1U	T9400	2.53	2GB WXGA		Cam	GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	UWB Yes	9	7-in-1	Bus32	W Oct 08	
❖ 2767-R3U	T9400	2.53	2GB WXGA+		Cam	GMA, 3470	160G 7200	DVD±RW	❖ Intel 5300	WWAN upg	UWB Yes	9	7-in-1	Bus32	W Oct 08	
2767-T1U	P8600	2.40	1GB WXGA			GMA, 3470	160G 7200	Combo	❖ Intel 5100	WWAN upg		6	Smart	Bus32	TAA Oct 08	
2767-T2U	P8600	2.40	2GB WXGA+			GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		6	Smart	Bus32	TAA Oct 08	
2767-4AU	T9400	2.53	3GB WXGA+			GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		Yes	6	PC	Bus32	WG Nov 08
2767-P8U	P8600	2.40	2GB WXGA+			GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		Yes	9	PC	Bus32	WG Dec 08
2767-P9U	P8600	2.40	2GB WXGA+	LED		GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		Yes	9	PC	Bus32	WG Dec 08
❖ 2767-H7U	P8700	2.53	2GB WXGA	LED		GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		Yes	6	PC	Bus32	Jun 09
❖ 2767-H8U	P8700	2.53	3GB WXGA	LED		GMA, 3470	80G SSD	DVD±RW	❖ Intel 5100	WWAN upg		Yes	6	PC	Bus32	Jun 09
❖ 2767-H9U	P8700	2.53	3GB WXGA	LED	Cam	GMA, 3470	128G SSD	DVD±RW	❖ Intel 5100	WWAN upg		Yes	6	PC	Bus32	Jun 09
US Govt (TAA) ⁵ Processor											Preloaded operating system ²⁰ - Genuine Windows [®] Vista [®] Business 32 ❖ Vista Premium logo					
Memory											Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan [®] Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe [®] Reader [®] • Windows Live™ Toolbar • Microsoft [®] Office 2007 Trial (60-day) • Roxio [®] Creator [®] Business Edition (combo, DVD±RW) • Roxio MyDVD [®] (DVD±RW) • Corel [®] WinDVD [®] (combo, DVD±RW)					
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk											1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available					
Widescreen display											Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel Some: 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive					
Camera											Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio					
Switchable graphics											Some: camera on top of screen, 1.3-megapixel, fixed focus					
Keyboard TrackPoint [®] Touch pad ThinkLight™											Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3470, PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; Maximum external resolution: 2048x1536 @ 75Hz					
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰											89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint [®] pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions					
Chipset											6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr					
ExpressCard/54 PC Card Smart Card read Multicard reader Ports											Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express [®] 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit Some: Smart Card reader Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Mini PCI Express											Supports ThinkVantage [®] technologies 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers [®] certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR [®] 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support											Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires Verizon [®] (43R9151) or AT&T [®] (43R9152) None Some: Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Security Security chip Fingerprint reader											ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025					
Limited warranty ¹² 3-years/1-yr battery - EasyServ™, 19 depot repair service / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
Other accessories on O-T400 sheet							Other accessories at lenovo.com/accessories									

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

❖ US models announced June 2, 2009; previous models on October 7, November 4, or December 2, 2008

❖ US models withdrawn effective August 2009

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(ML3-10) June 2009

ThinkPad® T400 2767 (Switchable) - July 2009

Personal Systems Reference (PSREF)

Type-model	Processor GHz	Memory	Wide- screen display	CCFL or Cam- era	Switchable graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Fing cells	Pre- load	Avail date
2767-HAU P8400	2.26	2GB	14.1"	WXGA LED Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	Yes	6 PC	Bus32 Jul 09
2767-HBU P8700	2.53	2GB	14.1"	WXGA LED	GMA, 3470	160G 7200	DVD±RW	11n ²⁸	WWAN upg	None	Yes	6 PC	Bus32 Jul 09
2767-HCU T9400	2.53	2GB	14.1"	WXGA LED Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	Yes	6 7-in-1	Bus32 Jul 09

• These models have a depot repair service 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8400, P8700, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8700: 3MB L2 cache; T9400: 6MB L2	Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ◇ Vista Premium logo
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214)	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel	
SATA disk	160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus	
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3470, PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm	
Weight ²	6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg)	
Case color	Black	
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	Supports ThinkVantage® technologies
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	90-watt (ATI graphics) AC adapter
PC Card	<i>Some:</i> One slot (Type I, Type II), CardBus 32-bit	ThinkPad Roll Cage and Top Cover
Smart Card read	None	Roll Cage (one-piece magnesium)
Multicard reader	<i>Some:</i> 7-in-1 reader (MMC, Memory Stick Pro, SD, SDHC, XD, XD Type H)	Climate Savers® certified
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	EPEAT™ Gold rating
Mini PCI Express	Three Mini PCI Express slots	ENERGY STAR® 5.0-compliant
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	RoHS-compliant
11n ²⁸	<i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II	International Warranty Service ¹⁷
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)	24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
2G Turbo	None	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD
UWB	None	45K6021
Modem	56K V.92 ⁶ modem	ThinkPlus 4-year LOR 9x5 NBD
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	45K6022
Ethernet	Non-vPro model: Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 vPro model: Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	ThinkPlus 5-year LOR 9x5 NBD
Intel AMT	Intel Active Management Technology (iAMT)	45K6024
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack	ThinkPlus 4-year P&L P/U Depot
Security	Power-on password, hard disk password, supervisor password, security keyhole	45K6023
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	ThinkPlus 5-year P&L P/U Depot
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip	45K6025
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

◇ Intel Centrino® 2 with vPro™ technology

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US models announced July 7, 2009

(ML3-15) July 2009

✗ US model withdrawn effective March 2010

Proc- Type-model	essor GHz	Memory	Wide- screen display	CCFL or Cam- LED era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Card slot	Whorse (W) Pre- Gbl (G) Avail load GMP (P) date
6475-11U	P8400	2.26	1GB	14.1" WXGA		GMA 80G 5400 Combo	✦ Intel 5100 ²⁸	WWAN upg			6 Yes PC	B32 GP Aug 08
6475-R1U	P8400	2.26	2GB	14.1" WXGA		Cam GMA 160G 5400 Combo	✦ Intel 5100	WWAN upg			6 Yes 7-in-1	B32 WGP Aug 08
6475-R2U	T9400	2.53	2GB	14.1" WXGA		Cam GMA 160G 7200 DVD±RW	✦ Intel 5100	WWAN upg	2G Turbo		9 Yes PC	B32 WGP Aug 08
6475-P1U	T9400	2.53	2GB	14.1" WXGA		GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	XP GP Sep 08
6475-44U	P8400	2.26	3GB	14.1" WXGA		Cam GMA 160G 5400 Combo	✦ Intel 5100	WWAN upg			6 Yes 7-in-1	B32 WGP Nov 08
6475-45U	T9400	2.53	3GB	14.1" WXGA		Cam GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	B32 WGP Nov 08
6475-P8U	P8600	2.40	2GB	14.1" WXGA		GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	B32 WGP Dec 08
6475-P9U	P8600	2.40	2GB	14.1" WXGA+ LED		GMA 160G 7200 DVD±RW	✦ Intel 5100	WWAN upg			9 Yes PC	B32 WGP Dec 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400 or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ✦ Vista models: Vista Premium logo	
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)	
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (5400 rpm or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus											
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg); <i>9-cell:</i> starting at 5.4 lb (2.4kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit											
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	<i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038	
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

US models announced December 2, 2008; previous models on Aug 5, Sep 2, or November 4, 2008

US models withdrawn effective March 2010

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(ML3-5) January 2009

ThinkPad® T400 2768 (Switchable) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- ory	14.1" wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Card slot	Pre- load	Whorse (W) GMP (P) Avail Gbl (G) date
2768-11U	P8600	2.40	1GB	WXGA+		GMA, 3470	80G 5400	Combo	✧ Intel 5100 ²⁸	WWAN upg		6	PC	Bus32	G P Aug 08
2768-12U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 5400	DVD±RW	✧ Intel 5100	WWAN upg		9	7-in-1	Bus32	WGP Aug 08
2768-2JU	T9400	2.53	2GB	WXGA	Cam	GMA, 3470	250G 5400	DVD±RW	✧ Intel 5100	WWAN upg		9	7-in-1	Bus32	WGP Aug 08
2768-P1U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	✧ Intel 5100	WWAN upg	Turbo	9	PC	XP Pro	G P Aug 08
2768-31U	P8600	2.40	2GB	WXGA	Cam	GMA, 3470	160G 7200	DVD±RW	✧ Intel 5300 ²⁸	WWAN upg		6	7-in-1	Bus32	WGP Oct 08
2768-4AU	T9400	2.53	3GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	✧ Intel 5100	WWAN upg		6	PC	Bus32	WGP Nov 08
2768-P8U	P8600	2.40	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	✧ Intel 5100	WWAN upg		9	PC	Bus32	WGP Dec 08
2768-P9U	P8600	2.40	2GB	WXGA+	LED	GMA, 3470	160G 7200	DVD±RW	✧ Intel 5100	WWAN upg		9	PC	Bus32	WGP Dec 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8600 or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8600</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache		Preloaded operating system²⁰ - <i>Some</i> : Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some</i> : Genuine Windows Vista Business 32 ✧ <i>Vista models</i> : Vista Premium logo Preloaded applications¹⁴ (all OSES, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in one socket; one socket available		
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some</i> : CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some</i> : DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some</i> : 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i> : 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i> : 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	<i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus		
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution</i> : 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH)</i> : 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell</i> : starting at 5.0 lb (2.3kg); <i>9-cell</i> : starting at 5.4 lb (2.4kg) Black <i>Top</i> : Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i> : Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell</i> : up to 6.5 hr; <i>6-cell plus Ultrabay battery</i> : up to 8.0 hr; <i>9-cell</i> : up to 9.8 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) <i>Some</i> : One slot (Type I, Type II), CardBus 32-bit		
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) <i>Some</i> : One slot (Type I, Type II), CardBus 32-bit None <i>Some</i> : 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots <i>Some</i> : 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some</i> : 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some</i> : Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some</i> : Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
Supports ThinkVantage® technologies			
90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

✧ Intel Centrino® 2 with vPro™ technology

⚡ US models announced December 2, 2008; previous models on Aug 5, Sep 2, Oct 7, or November 4, 2008

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(ML3-6) January 2009

ThinkPad® T400 6474 (GMA) - Education

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo	Blue/ cells Fing	Card slot	Workhorse (W) Global (G) Avail date
⚡ 6474-E1U	P8400	2.26	1GB	14.1" WXGA	Cam	GMA 80G 5400	Combo	❖ Intel 5100	WWAN upg	2G Turbo	6	Yes	PC Card W Aug 08
6474-E2U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G 7200	DVD±RW	❖ Intel 5100	WWAN upg	2G Turbo	9	Yes	7-in-1 W Aug 08
6474-E3U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 250G 5400	DVD±RW	❖ Intel 5100	WWAN upg	2G Turbo	9	Yes	7-in-1 W Aug 08
⚡ 6474-E8U	P8700	2.53	2GB	14.1" WXGA	Cam	GMA 250G 5400	DVD±RW	❖ Intel 5100	WWAN upg		6	Yes	7-in-1 Mar 09
⚡ 6474-E9U	T9600	2.80	3GB	14.1" WXGA+	Cam	GMA 160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		9	Yes	7-in-1 Mar 09

• These models have a depot repair service 3-year limited warranty

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8700, T9400, or T9600 with dual-core, 1066MHz system bus; <i>P8400/P8700:</i> 3MB L2 cache; <i>T9400/T9600:</i> 6MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ✧ Vista Premium logo Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (combo, DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (combo, DVD±RW)
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB ⁸ (5400 rpm), 160GB (7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536 @75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg); <i>9-cell:</i> starting at 5.4 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One ExpressCard/34 or ExpressCard/54 <i>Some:</i> One Type I or Type II slot, CardBus 32-bit	Supports ThinkVantage® technologies
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	One ExpressCard/34 or ExpressCard/54 <i>Some:</i> One Type I or Type II slot, CardBus 32-bit None <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

⚡ US models announced March 24, 2009; previous models on August 5, 2008

⚡ US model withdrawn effective August 2009

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(ML3-7) April 2009

ThinkPad® T400 2767 (Switchable) - Education

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Mem- ory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Card slot	Whorse (W) Global (G) Avail Preload	date
2767-E1U T9400	2.53	2.53	2GB	14.1"	WXGA+Cam	GMA, HD 3470	160G 5400	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	2G Turbo	9	7-in-1	B32	W Aug 08
2767-E2U T9400	2.53	2.53	2GB	14.1"	WXGA+Cam	GMA, HD 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg	2G Turbo	9	7-in-1	B32	W Aug 08
2767-E7U T9400	2.53	2.53	2GB	14.1"	WXGA+Cam	GMA, HD 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg	2G Turbo	6	7-in-1	U32	W Feb 09
2767-E8U T9600	2.80	3GB	3GB	14.1"	WXGA+Cam	GMA, HD 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		9	7-in-1	B32	Mar 09

- **These models have a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD Boost, and 6MB L2 cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® Vista® Business 32 - <i>Some:</i> Genuine Windows Vista Ultimate 32 ✧ Vista Premium logo Preloaded applications ¹⁴ (all OSES, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (5400 or 7200rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution: 2048x1536@75Hz</i>		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm		
Weight ²	<i>9-cell:</i> starting at 5.4 lb (2.4kg)		
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	<i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 11.3 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One ExpressCard/34 or ExpressCard/54		
ExpressCard slot	None		
PC Card Std slot	None		
Smart Card Read	None		
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express	Three Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)		
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator		
UWB	None		
Modem	56K V.92 ⁶ modem		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378		
ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021		
ThinkPlus 4-year LOR 9x5 NBD 45K6022		
ThinkPlus 5-year LOR 9x5 NBD 45K6024		
ThinkPlus 4-year P&L P/U Depot 45K6023		
ThinkPlus 5-year P&L P/U Depot 45K6025		
Post-warranty annual maintenance agreements at **lenovo.com/thinkplus/warranty**		

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology

US model announced March 24, 2009; previous models on August 5, 2008 or February 17, 2009

US model withdrawn effective February 2010

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(ML3-8) April 2009

Memory

1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann	03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann	03/17/09
4GB PC3-8500 DDR3 SODIMM	51J0493	ann	03/03/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
DVD-ROM Ultrabay Slim SATA 1.5Gb/s	43N3212	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s	43N3214	ann	08/05/08
DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s	43N3292	ann	04/20/10

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann	06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann	06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann	08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ThinkPad T400/T410/R400 Privacy Filter	43R2472	ann	08/05/08
Note: ThinkPad T400/T410/R400 Privacy Filter (43R2472) is not supported on T400s or T410s.			
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 33 (4-cell)	41U3196	ann	05/09/07
ThinkPad Battery 33+ (6-cell)	41U3198	ann	05/09/07
ThinkPad Battery 33++ (9-cell)	43R2499	ann	03/04/08
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann	08/25/09
⁴³ Used in Ultrabay Slim bay.			
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.			

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 15.6" widescreen models:

Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad T410



Lenovo ThinkPad T410



Lenovo ThinkPad T410



Lenovo ThinkPad T410



Lenovo ThinkPad T410



ThinkPad Mini Dock Series 3
433710U

ThinkPad® T410 2516 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Cam-era	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Avail date
2516-ADU	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	250G 5400	11b/g/n	None	None	None	6	No	Pro 32	Jan 10

- *This small and medium business (SMB) model is part of the US TopSeller™ Program*

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None 56K V.92 ⁶ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US model announced January 7, 2010

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(NZ1-1) January 2010

ThinkPad® T410 2518 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCle Mini Card 802.11	PCle Mini Card WWAN	Finger print reader	Bat- tery Intel vPro	Preload	Avail date
2518-C3U	i5-540M	2.53	3.06	2GB	14.1" WXGA	LED	2.0M	320G 7200	11b/g/n	WWAN upg	Finger	Blue 6	XP Pro	Jan 10
2518-F4U	i5-540M	2.53	3.06	3GB	14.1" WXGA+	LED	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue 6 vPro	XP Pro	Jan 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Presentation Director• ThinkVantage Productivity Center• Lenovo System Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB ⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCle Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCle Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCle Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable	
Modem Bluetooth™ Ethernet	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCle x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCle x1	
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
 US models announced January 7, 2010

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 (NZ1-2) January 2010

ThinkPad® T410 2518 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger-print reader	Bat-tery Intel vPro	Preload	Avail date
2518-C2U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	250G 5400	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger 6	vPro Pro 32	Jan 10
2518-F3U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	250G 5400	11b/g/n	WWAN upg		6	Pro 32	Jan 10
2518-F6U	i5-520M	2.40	2.93	4GB	14.1" WXGA+	LED	2.0M	80G SSD	Intel 6200	WWAN upg		Finger 9	vPro Pro 32	Jan 10
2518-4HU	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	320G 7200	Intel 6200	WWAN upg		Finger 6	vPro Pro 32	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB ® Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 250GB (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	
Carrier Modem Bluetooth™ Ethernet	<i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

US model announced March 2, 2010; previous models on January 7, 2010

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(NZ1-3) March 2010

ThinkPad® T410 2516 (Discrete) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Avail date
2516-AEU	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	320G 7200	11b/g/n	None	None	Blue	9	No	Pro 32	Jan 10

- This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm		
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)		
Case color	Black		
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom		
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr		
Chipset	Mobile Intel QM57 Express Chipset		
ExpressCard/34	One slot (ExpressCard/34)		
Smart Card read	None		
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)		
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card	Two PCI Express Mini Card slots		
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card		
WWAN upg	None		
Modem	56K V.92 ⁶ modem		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

			Supports ThinkVantage® technologies
			90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378
			ThinkPlus™.²² 1-year LOR²⁴ 9x5 NBD 45K5968
			ThinkPlus 2-year LOR 9x5 NBD 45K5969
			ThinkPlus 3-year LOR 9x5 NBD 45K5970
			ThinkPlus 4-year LOR 9x5 NBD 45K5973
			ThinkPlus 5-year LOR 9x5 NBD 45K5975
			ThinkPlus 2-year P&L P/U Depot 45K5971
			ThinkPlus 3-year P&L P/U Depot 45K5972
			ThinkPlus 4-year P&L P/U Depot 45K5974
			ThinkPlus 5-year P&L P/U Depot 45K5976
			Post-warranty annual maintenance agreements at **lenovo.com/thinkplus/warranty**

See footnotes for important warranty information
 US model announced January 7, 2010

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 (NZ1-4) January 2010

ThinkPad® T410 2518 (Discrete) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

		Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸	rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- tery Intel vPro	Preload	Avail date
E3 [®]	2518-C5U	i5-540M	2.53	3.06	2GB	14.1" WXGA+	LED	2.0M	128G SSD	DVD±RW		Intel 6200 ²⁸	WWAN upg	Fing	9	vPro	XP Pro	Jan 10
	2518-4JU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	LED	2.0M	320G 7200	DVD±RW		Intel 6200	WWAN upg		9	vPro	XP Pro	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Presentation Director• ThinkVantage Productivity Center• Lenovo System Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive		
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus		
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr		
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCle Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCle Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCle x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies	
90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
ThinkPlus™, ²² 3-year LOR ²⁴ 9x5 NBD	45K6021
ThinkPlus 4-year LOR 9x5 NBD	45K6022
ThinkPlus 5-year LOR 9x5 NBD	45K6024
ThinkPlus 4-year P&L P/U Depot	45K6023
ThinkPlus 5-year P&L P/U Depot	45K6025
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information

US model announced March 2, 2010; previous model on January 7, 2010

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(NZ1-5) March 2010

ThinkPad® T410 2518 (Discrete) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Blue/ Fing	Intel vPro	Preload	Avail date
2518-C4U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	LED	2.0M	320G 7200	11b/g/n	Gobi 2000	Verizon ¹⁶	Yes		Pro 32	Jan 10
2518-F5U	i5-540M	2.53	3.06	4GB	14.1" WXGA+	LED	2.0M	500G 7200	WiMAX	WWAN upg		Yes	vPro	Pro 32	Jan 10
2518-4KU	i5-520M	2.40	2.93	4GB	14.1" WXGA+	LED	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000	Verizon	Yes	vPro	Pro 64	Mar 10
2518-4LU	i5-540M	2.53	3.06	4GB	14.1" WXGA+	LED	2.0M	320G 7200	WiMAX	WWAN upg		Yes	vPro	Pro 64	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) or 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass Touchpad ThinkLight™ Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm														
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)														
Case color	Black														
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom														
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr														
Chipset	Mobile Intel QM57 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Smart Card read	None														
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)														
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies				
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX														
WWAN upg	<i>Some:</i> Wireless WAN upgradable														
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier	<i>Some:</i> Verizon®, contract required with service provider														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT)														
Intel AMT															
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

US models announced March 2, 2010; previous models on January 7, 2010

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(NZ1-6) March 2010

ThinkPad® T410 2519 (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸	rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue-tooth	Intel vPro	Preload	Avail date
2519-8AU	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	250G	5400	DVD±RW	Intel 6200 ²⁸	WWAN upg	Blue	vPro	Pro 32	Jan 10

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
 US model announced January 7, 2010

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 (NZ1-7) January 2010

Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory (MHz)	Wide- screen display	Camera	Disk SATA GB ⁸ rpm	PCle Mini Card 802.11	PCle Mini Card WWAN	Carrier	Finger print reader	Blue- tooth cells	Bat- tery vPro	Intel Preload	Workhorse (W) Global (G) Avail date
2522-60U	i5-540M	2.53	3.06	2GBx1 1066	14.1" WXGA+	2.0M 320G 7200	Intel 6200 ²⁸	Gobi	AT&T ²³	Fing	Blue	6 vPro	Pro 32	Jan 10
2522-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	320G 7200	Intel 6200	upg		Fing	Blue	6 vPro	Pro 32	G Jan 10
2522-2AU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 250G 5400	Intel 6200	upg		Fing	Blue	6 vPro	Pro 32	Jan 10
2522-25U	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA+	320G 7200	Intel 6200	upg		Fing	Blue	6 vPro	Pro 32	W G Jan 10
2522-48U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 320G 7200	Intel 6200	Gobi	AT&T	Fing	Blue	6 vPro	Pro 32	Jan 10
2522-49U	i5-520M	2.40	2.93	2+1GB 1066	14.1" WXGA	2.0M 80G SSD	Intel 6300 ²⁸	upg		Fing	Blue	6 vPro	Pro 32	Jan 10
2522-27U	i5-540M	2.53	3.06	4GBx1 1333	14.1" WXGA	250G FDE	Intel 6200	upg		Fing	Blue	6 vPro	Pro 64	G Mar 10
2522-28U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	250G 5400	Intel 6200	upg			Blue	9 vPro	Pro 64	G Mar 10
2522-4CU	i5-540M	2.53	3.06	2GBx1 1066	14.1" WXGA	2.0M 320G 7200	WiMAX	upg			Blue	6 vPro	Pro 32	Mar 10
2522-4DU	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA	2.0M 320G 7200	Intel 6200	upg			Blue	6 vPro	Pro 64	Mar 10
2522-29U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 160G 7200	Intel 6200	upg			Blue	6 vPro	Pro 32	G Apr 10
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 250GB (7200 rpm) Full Disk Encryption [FDE] / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive										<ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)			
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm													
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)													
Case color	Black													
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery													
Battery - life ¹⁰	6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr													
Chipset	Mobile Intel QM57 Express Chipset													
ExpressCard/34	One slot (ExpressCard/34)													
Smart Card read	None													
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)													
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card	Two PCI Express Mini Card slots													
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX													
Intel 6300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3													
WWAN upg	<i>Some:</i> Wireless WAN upgradable													
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier	<i>Some:</i> AT&T®, contract required with service provider													
Modem	56K V.92 ⁶ modem													
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													
											Supports ThinkVantage® technologies			
											65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021			
											ThinkPlus 4-year LOR 9x5 NBD 45K6022			
											ThinkPlus 5-year LOR 9x5 NBD 45K6024			
											ThinkPlus 4-year P&L P/U Depot 45K6023			
											ThinkPlus 5-year P&L P/U Depot 45K6025			
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

US model announced April 6, 2010; previous models on January 7 or March 2, 2010

ThinkPad® T410 2519 (Discrete) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Intel vPro	Preload	Avail date
2519-8BU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	LED	2.0M	320G 7200	DVD±RW	Intel 6200 ²⁸	None	Yes 6 vPro	Pro 32	Jan 10

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)												
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies												
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378												
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr													
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976												
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty												
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
 US model announced January 7, 2010

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 (NZ1-9) January 2010

ThinkPad® T410 2522 (Discrete) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Bat-tery Intel vPro	Workhorse (W) Global (G)	Avail date
2522-23U	i5-520M	2.40	2.93	2GB	14.1" WXGA		320G 7200	Intel 6200 ²⁸	WWAN upg		Finger	9 vPro	Pro 32 G	Jan 10
2522-24U	i5-540M	2.53	3.06	2GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200	WWAN upg		Finger	9 vPro	Pro 32 G	Jan 10
2522-2BU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200	Gobi 2000	Verizon ¹⁶	Finger	9 vPro	Pro 32	Jan 10
2522-26U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	80G SSD	Intel 6200	WWAN upg		Finger	6 vPro	Pro 32 G	Jan 10
2522-4AU	i5-520M	2.40	2.93	2GB	14.1" WXGA		250G 5400	Intel 6200	WWAN upg		Finger	9 vPro	Pro 32	Jan 10
2522-4BU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	6 vPro	Pro 32	Jan 10
2522-4EU	i5-540M	2.53	3.06	4GB	14.1" WXGA		320G 7200	Intel 6200	WWAN upg		Finger	6 vPro	Pro 64	Mar 10
2522-4FU	i5-540M	2.53	3.06	2GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³		6 vPro	Pro 32	Mar 10
2522-4TU	i5-520M	2.40	2.93	2GB	14.1" WXGA		160G 7200	Intel 6200	WWAN upg		Finger	6 vPro	Pro 32	Apr 10
• These models have a depot repair service 3-year limited warranty														
Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access Some: 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display	Some: 14.1" (358mm) WXGA (1280x800) color, anti-glare, LED backlight, 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 220 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® NVS3100M, PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black Top: High Elasticity PolyCarbonate (HEPC); Bottom: Carbon-Fiber Reinforced Plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr													
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: AT&T® or Verizon®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

US model announced April 6, 2010; previous models on January 7 or March 2, 2010

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(NZ1-10) April 2010

ThinkPad® T410 2522 (Discrete) - Windows 7 (May 2010)

Personal Systems Reference (PSREF)

Type-model	Processor	Max turbo		Memory (MHz)	Wide-screen display	Graphics controller memory	Disk		PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Intel vPro	Workhorse (W)		
		Base (GHz)	(GHz)				SATA GB ⁸	rpm					Preload	Global (G)	Avail date
2522-K2U	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA	512MB	160G 7200	Intel 6200 ²⁸	WWAN upg		vPro	Pro 64	G	May 10
2522-K3U	i5-540M	2.53	3.06	4GBx1	1333	14.1" WXGA+	512MB	320G 7200	Intel 6200	WWAN upg	Finger	vPro	Pro 64	G	May 10
2522-K4U	i7-620M	2.66	3.33	4GBx1	1333	14.1" WXGA+	512MB	320G 7200	Intel 6200	WWAN upg	Finger	vPro	Pro 64	G	May 10
2522-K5U	i5-540M	2.53	3.06	2GBx1	1066	14.1" WXGA+	512MB	160G 7200	Intel 6200	WWAN upg	Finger	vPro	Pro 64		May 10

• These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core or Intel Core i7 processor i7-620M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/ i5-540M: 3MB cache; i7-620M: 4MB cache</i>										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display	<i>Some: 14.1" (358mm) WXGA (1280x800) color</i> , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some: 14.1" (358mm) WXGA+ (1440x900) color</i> , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio										
Camera	Camera on top of screen, 2.0-megapixel, fixed focus										
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>										
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3" ; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr										Supports ThinkVantage® technologies
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>										
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										

See footnotes for important warranty information
 US models announced May 4, 2010

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 (NZ1-15) May 2010

ThinkPad® T410 2537 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger-print reader	Bat-tery cells	Intel vPro	Workhorse (W) Global (G) Preload GMP (P)	Avail date
2537-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA		320G 7200	Intel 6200 ²⁸	WWAN upg	Finger	6	vPro	Pro 32	G P Jan 10
2537-25U	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA+		320G 7200	Intel 6200	WWAN upg	Finger	6	vPro	Pro 32	W G P Jan 10
2537-27U	i5-540M	2.53	3.06	4GBx1 1333	14.1" WXGA		250G FDE	Intel 6200	WWAN upg	Finger	6	vPro	Pro 64	G P Mar 10
2537-28U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA		250G 5400	Intel 6200	WWAN upg		9	vPro	Pro 64	G P Mar 10
2537-29U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M	160G 7200	Intel 6200	WWAN upg		6	vPro	Pro 32	G P Apr 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel™ Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)	
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 160GB⁸ (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 250GB (7200 rpm) Full Disk Encryption [FDE] / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr		
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 45K6038
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

® US model announced April 6, 2010; previous models on January 7 or March 2, 2010

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(NZ1-11) April 2010

ThinkPad® T410 2537 (Discrete) - Onsite (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Battery cells	Intel vPro	Pre-load	Global (G) GMP (P)	Workhorse (W) Avail date
2537-23U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	9	vPro	Pro 32	G P	Jan 10
2537-24U	i5-540M	2.53	3.06	2GB	14.1" WXGA+	LED	2.0M	128G SSD	Intel 6200	WWAN upg	9	vPro	Pro 32	G P	Jan 10
2537-26U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	LED	2.0M	80G SSD	Intel 6200	WWAN upg	6	vPro	Pro 32	G P	Jan 10

- **These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr														
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										Supports ThinkVantage® technologies				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										ThinkPlus™, 22 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
 US models announced January 7, 2010

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 (NZ1-12) January 2010

ThinkPad® T410 2522 (Education) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Processor (GHz)	Memory	Wide-screen display	CCFL or LED Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat-Blue- toot Intel vPro	Preload	Avail date		
2522-52U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED 2.0M	250G 5400	Intel 6200 ²⁸			6	vPro	Pro 32	Jan 10	
2522-53U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED 2.0M	320G 5400	Intel 6200		Finger	Blue	6	vPro	Pro 32	Jan 10
2522-54U	i5-520M	2.40	2.93	3GB	14.1" WXGA+	LED 2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	vPro	Pro 32	Jan 10
<ul style="list-style-type: none">• These models have a depot repair service 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.• Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.															
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • <i>54U model:</i> Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Adobe® Reader® • Skype™ for Windows • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material	<i>14.1W" (WxDxH):</i> 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr										Supports ThinkVantage® technologies				
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced January 7, 2010

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(NZ1-13) January 2010

ThinkPad® T410 2522 (Discrete) - Education (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat-Blue- tooth	tery Intel vPro	Preload	Avail date
2522-55U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	320G 5400	Intel 6200 ²⁸	Finger	Blue	6	vPro	Pro 32 Jan 10
2522-56U	i5-520M	2.40	2.93	3GB	14.1" WXGA+	LED	2.0M	320G 7200	Intel 6200 WWAN upg	Finger	Blue	9	vPro	Pro 32 Jan 10

- **These models have an depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • 56U model: Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Adobe® Reader® • Skype™ for Windows • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB ⁸ (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced January 7, 2010

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ThinkPad® T410i 2516 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ^a rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Avail date
2516-APU	i3-330M	2.13	2GB	14.1" WXGA	LED	2.0M	250G 5400	Intel 1000					6	No	XP Pro	Feb 10
2516-ARU	i3-330M	2.13	2GB	14.1" WXGA	LED	2.0M	320G 7200	Intel 1000			Finger	Blue	6	No	XP Pro	Feb 10
2516-BQU	i3-330M	2.13	2GB	14.1" WXGA	LED	2.0M	250G 5400	Intel 1000	Gobi 2000	AT&T ²³			6	No	XP Pro	Apr 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32	
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Presentation Director• ThinkVantage Productivity Center• Lenovo System Toolbox• Adobe® Reader®• Skype™ for Windows• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio			
Camera	Camera on top of screen, 2.0-megapixel, fixed focus			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)			
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm			
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)			
Case color	Black			
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic			
Battery - type	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom			
Battery - life ¹⁰	6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr			
Chipset	Mobile Intel QM57 Express Chipset			
ExpressCard/34	One slot (ExpressCard/34)			
Smart Card read	None			
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)			
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
PCIe Mini Card	Two PCI Express Mini Card slots			
Intel 1000	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2			
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider			
Carrier	<i>Some:</i> AT&T®, contract required with service provider			
Modem	56K V.92 ⁶ modem			
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator			
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1			
Intel AMT	Intel Active Management Technology (iAMT)			
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available			
			Supports ThinkVantage® technologies	
			65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
			ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968	
			ThinkPlus 2-year LOR 9x5 NBD 45K5969	
			ThinkPlus 3-year LOR 9x5 NBD 45K5970	
			ThinkPlus 4-year LOR 9x5 NBD 45K5973	
			ThinkPlus 5-year LOR 9x5 NBD 45K5975	
			ThinkPlus 2-year P&L P/U Depot 45K5971	
			ThinkPlus 3-year P&L P/U Depot 45K5972	
			ThinkPlus 4-year P&L P/U Depot 45K5974	
			ThinkPlus 5-year P&L P/U Depot 45K5976	
			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information

US model announced April 6, 2010; previous models on February 2, 2010

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ThinkPad® T410i 2516 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸	rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
2516-AQU	i3-330M	2.13	2GB	14.1" WXGA	LED	2.0M	250G	5400	DVD±RW	Intel 1000	None	None	None	6	No	Pro 32 Feb 10

- This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW) Supports ThinkVantage® technologies
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB ⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm	
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)	
Case color	Black	
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom	
Battery - life ¹⁰	6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr	
Chipset	Mobile Intel QM57 Express Chipset	
ExpressCard/34	One slot (ExpressCard/34)	
Smart Card read	None	
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card	Two PCI Express Mini Card slots	
Intel 1000	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2	
WWAN upg	None	
Modem	56K V.92 ⁶ modem	
Bluetooth™	None	
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
ThinkPlus 2-year LOR 9x5 NBD 45K5969
ThinkPlus 3-year LOR 9x5 NBD 45K5970
ThinkPlus 4-year LOR 9x5 NBD 45K5973
ThinkPlus 5-year LOR 9x5 NBD 45K5975
ThinkPlus 2-year P&L P/U Depot 45K5971
ThinkPlus 3-year P&L P/U Depot 45K5972
ThinkPlus 4-year P&L P/U Depot 45K5974
ThinkPlus 5-year P&L P/U Depot 45K5976
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US model announced February 2, 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
DVD Burner Ultrabay Slim Drive II SATA 1.5Gb/s	43N3229	ann	06/23/09
Ultrabay Slim Blu-ray Burner II (SATA)	43N3230	ann	06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s	43N3292	ann	04/20/10

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann	06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann	06/23/09

USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann	01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann	01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad Port Replicator Series 3	433610W	ann	06/23/09
ThinkPad Mini Dock Series 3	433710U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3	433810U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 - Mobile WS	433820U	ann	01/07/10

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ThinkPad T400/T410/R400 Privacy Filter	43R2472	ann	08/05/08

Note: ThinkPad T400/T410/R400 Privacy Filter (43R2472) is not supported on T400s or T410s.

Batteries

ThinkPad Battery 55+ (6-cell)	57Y4185	ann	03/30/10
ThinkPad Battery 55++ (9-cell)	57Y4186	ann	03/30/10
ThinkPad Battery 27++ (9-cell, slice) ⁴³	57Y4545	ann	01/07/10

⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using Series 3 Port Replicator or Docks).

ThinkPad External Battery Charger	40Y7625	ann	09/20/05
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More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 15.6" widescreen models:

Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45Y7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad T400s



Lenovo ThinkPad T400s with
ThinkPad Mini Dock Series 3
433710U



ThinkPad Mini Dock Plus Series 3
433810U



ThinkPad Battery 59+ (6-cell)
51J0497



Lenovo ThinkPad T400s



Lenovo ThinkPad T400s

ThinkPad® T400s 2808 (GMA) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date
2808-DHUSP9400	2.40	2GB	14.1" WXGA+			GMA 120G	5400	DVD±RW	❖ Intel 5100 ²⁸	WWAN	upg	None	Fing	Express	XPP	Oct 09
2808-DJU SP9400	2.40	2GB	14.1" WXGA+			GMA 250G	5400	DVD±RW	❖ Intel 5100	WWAN	upg	None	Fing	Express	XPP	Oct 09
2808-DKUSP9400	2.40	2GB	14.1" WXGA+		Cam	GMA 128G	SSD	DVD±RW	❖ Intel 5100	WWAN	upg	None	Fing	Express	XPP	Nov 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ 2 Duo processor SP9400 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Camera		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm	
Weight ²	6-cell: starting at 3.9 lb (1.77kg)	
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 8.5 hr	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)	Supports ThinkVantage® technologies
ExpressCard/34	One slot (ExpressCard/34)	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Smart Card Read	None	
Multicard Reader	None	
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)	
2G Turbo	None	
UWB	None	
Modem	None	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	ThinkPlus 4-year LOR 9x5 NBD 45K6022
Intel AMT	Intel Active Management Technology (iAMT)	ThinkPlus 5-year LOR 9x5 NBD 45K6024
Audio support	High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus 4-year P&L P/U Depot 45K6023
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus 5-year P&L P/U Depot 45K6025
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology
 US model announced November 3, 2009; previous models on October 22, 2009

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 (SN1-5) December 2009

ThinkPad® T400s 2808 (GMA) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date
2808-DLU SP9600	2.53	4GB	14.1"	WXGA+	Cam	GMA	128G SSD	DVD±RW	❖Intel 5100 ²⁸	AT&T ²³	None	Fing	Blue	Express	Pro 64	Nov 09

- This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ 2 Duo processor SP9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive		
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm		
Weight ²	6-cell: starting at 3.9 lb (1.77kg)		
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy		
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 8.5 hr		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)		
ExpressCard/34	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	None		
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
Mini PCI Express	Three Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
AT&T ²³	Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®		
2G Turbo	None		
UWB	None		
Modem	None		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		
			Supports ThinkVantage® technologies
			65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
			ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021
			ThinkPlus 4-year LOR 9x5 NBD 45K6022
			ThinkPlus 5-year LOR 9x5 NBD 45K6024
			ThinkPlus 4-year P&L P/U Depot 45K6023
			ThinkPlus 5-year P&L P/U Depot 45K6025
			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US model announced November 3, 2009

❖ Intel Centrino® 2 with vPro™ technology

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(SN1-6) March 2010

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Mini PCIe Finger print	Blue- tooth	Card slot	Whorse (W) Gbl (G) Avail date
2815-22U	SP9400	2.40	2GB	14.1" WXGA+		GMA 120G	5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	Fing	Blue	Express XP	G Jun 09
2815-23U	SP9600	2.53	3GB	14.1" WXGA+	Cam	GMA 250G	5400	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	Express B32	G Jun 09
2815-24U	SP9600	2.53	4GB	14.1" WXGA+	Cam	GMA 128G	SSD	DVD±RW	Intel 5300 ²⁸	WWAN upg	None	Fing	Blue	Express B32	G Jun 09
2815-25U	SP9600	2.53	2GB	14.1" WXGA+	Cam	GMA 80G	SSD	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	Express B32	G Jul 09
2815-2YU	SP9400	2.40	3GB	14.1" WXGA+	Cam	GMA 120G	5400	DVD±RW	Intel 5100	Verizon ¹⁶	None	Fing	Blue	Express B32	Jun 09
2815-2ZU	SP9400	2.40	3GB	14.1" WXGA+	Cam	GMA 128G	SSD	DVD±RW	Intel 5100	AT&T ²³	None	Fing	Blue	Express B32	Jun 09
2815-30U	SP9600	2.53	3GB	14.1" WXGA+	Cam	GMA 128G	SSD	DVD±RW	Intel 5300	Verizon	None	Fing	Blue	Express B32	Jun 09
2815-3YU	SP9400	2.40	3GB	14.1" WXGA+	Cam	GMA 120G	5400	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	Express B32	Jun 09
2815-62U	SP9400	2.40	2GB	14.1" WXGA+		GMA 120G	5400	DVD±RW	Intel 5100	WWAN upg	None			Express B32 TAA	Jun 09
2815-63U	SP9400	2.40	3GB	14.1" WXGA+		GMA 128G	SSD	DVD±RW	Intel 5100	WWAN upg	None			Express B32	Jun 09
2815-64U	SP9600	2.53	3GB	14.1" WXGA+		GMA 128G	SSD	DVD±RW	Intel 5100	WWAN upg	None			Express B32 TAA	Jun 09
US Govt (TAA) ⁵ Processor	62U/63U/64U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor SP9400 or SP9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo			
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Camera	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touch pad	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
ThinkLight™															
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.9 lb (1.77kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 5.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
ExpressCard/34 Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34) None None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)											Supports ThinkVantage® technologies			
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg Verizon ¹⁶ AT&T ²³ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authen- tication, supports the security chip											ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021			
Security chip												ThinkPlus 4-year LOR 9x5 NBD 45K6022			
Fingerprint reader												ThinkPlus 5-year LOR 9x5 NBD 45K6024			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											ThinkPlus 4-year P&L P/U Depot 45K6023			
												ThinkPlus 5-year P&L P/U Depot 45K6025			
												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced June 23, 2009

✦ Intel Centrino® 2 with vPro™ technology

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(SN1-4) March 2010

ThinkPad® T400s 2815 (GMA) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Inte- grated era graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Card Fing slot	Preload	Avail date
2815-5XU	SP9400	2.40	2GB	14.1" WXGA+	MultiTouch	Cam	GMA 120G	5400 DVD±RW	Intel 5100 ²⁸	WWAN upg	No	Yes	Express Pro 32	Dec 09
2815-5YU	SP9400	2.40	4GB	14.1" WXGA+	MultiTouch	Cam	GMA 128G	SSD DVD±RW	Intel 5100	WWAN upg	No	Yes	Express Pro 64	Dec 09

• These models have a depot repair service 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor SP9400 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, MultiTouch (touchscreen support two-finger touch) Camera on top of screen, 2.0-megapixel, fixed focus													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm													
Weight ²	6-cell: starting at 4.51 lb (2.05kg)													
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy													
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 8.5 hr													
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)										Supports ThinkVantage® technologies			
ExpressCard/34	One slot (ExpressCard/34)													
Smart Card Read	None													
Multicard Reader	None													
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)None													
2G Turbo	None													
UWB	None													
Modem	None													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced December 1, 2009

❖ Intel Centrino® 2 with vPro™ technology

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(SN1-7) December 2009

ThinkPad® T400s 2823 (GMA) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Fingerprint reader	Bluetooth	Card slot	Whorse (W) Pre-GMP (P) Avail load Gbl (G) date
2823-22U SP9400	2.40	2GB	14.1" WXGA+	GMA 120G	5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	Fing	Blue	Express	XP	G P	Jun 09
2823-23U SP9600	2.53	3GB	14.1" WXGA+	Cam GMA 250G	5400	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	Express	B32	G P	Jun 09
2823-24U SP9600	2.53	4GB	14.1" WXGA+	Cam GMA 128G	SSD	DVD±RW	Intel 5300 ²⁸	WWAN upg	None	Fing	Blue	Express	B32	G P	Jun 09
2823-25U SP9600	2.53	2GB	14.1" WXGA+	Cam GMA 80G	SSD	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	Express	B32	G P	Jul 09

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ 2 Duo processor SP9400 or SP9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache		Preloaded operating system ²⁰ - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 ✧ <i>Vista models:</i> Vista Premium logo Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive		
Widescreen display Camera	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touch pad	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.9 lb (1.77kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 5.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)		
ExpressCard/34 Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34) None None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152) None None None Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
Supports ThinkVantage® technologies			
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
ThinkPlus™. ²² 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced June 23, 2009

♦ Intel Centrino® 2 with vPro™ technology

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(SN1-2) December 2009

ThinkPad® T400s 2815 (GMA) - Education

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date
2815-52U	SP9400	2.40	2GB	14.1" WXGA+	Cam	GMA	120G 5400	DVD±RW	❖Intel 5100 ²⁸	WWAN upg	None	Fing	Blue	Express	Bus 32	Jun 09
2815-53U	SP9400	2.40	2GB	14.1" WXGA+	Cam	GMA	128G SSD	DVD±RW	❖Intel 5100	WWAN upg	None	Fing	Blue	Express	Bus 32	Jun 09

• **These models have a depot repair service 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ 2 Duo processor SP9400 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ❖ Vista Premium logo Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available															
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive															
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Camera on top of screen, 2.0-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm															
Weight ²	6-cell: starting at 3.9 lb (1.77kg)															
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy															
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 8.5 hr															
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)										Supports ThinkVantage® technologies					
ExpressCard/34	One slot (ExpressCard/34)															
Smart Card Read	None															
Multicard Reader	None															
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)															
Mini PCI Express	Three Mini PCI Express slots															
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)															
WWAN upg	Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152)															
2G Turbo	None															
UWB	None															
Modem	None															
Bluetooth™	Bluetooth 2.1 wireless, LED indicator															
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack															
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					

See footnotes for important warranty information
US models announced June 23, 2009

❖ Intel Centrino® 2 with vPro™ technology

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(SN1-3) December 2009

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD Burner Ultrabay Slim Drive II SATA 1.5Gb/s	43N3229	ann 06/23/09
Ultrabay Slim Blu-ray Burner II (SATA)	43N3230	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s	43N3292	ann 04/20/10

Storage and removable storage

1.8" 250GB Disk SATA 3.0Gb/s (5400 rpm)	43N3418	ann 06/23/09
500GB Disk SATA 3.0Gb/s (5400 rpm) ⁵¹	43N3420	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁵¹	43N3423	ann 01/07/10

⁵¹ Can be used with *Serial ATA Hard Drive Bay Adapter III* 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8"(2.5" cover) ⁴⁹	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover) ⁴⁹	43N3417	ann 06/23/09

⁴⁹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III* 43N3412 in Ultrabay via the removable adaptive cover provided with the drive

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Wireless WAN (Mini PCI Express)

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann 08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann 08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad Port Replicator Series 3	433610W	ann 06/23/09
ThinkPad Mini Dock Series 3	433710U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3	433810U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 (Mobile WS)	433820U	ann 01/07/10

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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Batteries

ThinkPad Battery 59+ (6-cell)	51J0497	ann 06/23/09
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann 08/25/09
⁴³ Used in Ultrabay Slim bay.		
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter</i> 40Y7659 or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• BlackBerry charge tip (L8a)	41R4478	ann 12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann 05/05/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Up to 15.6" widescreen models:

Wenger Backpack for Lenovo	57Y4271	ann 01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann 01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann 01/07/10

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad T410s



Lenovo ThinkPad T410s



ThinkPad Battery 42 (3-cell, bay)
57Y4536



ThinkPad Battery 59+ (6-cell)
51J0497



Lenovo ThinkPad T410s



Lenovo ThinkPad T410s

ThinkPad® T410s 2901 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Fing/Blue	Card slot	Intel vPro	Preload	Avail date
2901-A3U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	250G 5400	DVD±RW	11b/g/n	WWAN upg	Yes	Express	XP Pro	Feb 10
2901-A4U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	80G SSD	DVD±RW	Intel 6200 ²⁸	WWAN upg	Yes	Express	vPro XP Pro	Feb 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										Supports ThinkVantage® technologies			
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable													
Modem Bluetooth™ Ethernet	None Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1													
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced January 7, 2010

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(SN2-1) January 2010

ThinkPad® T410s 2904 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Processor	Base turbo		Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
		(GHz)	(GHz)													
2904-CFU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg		Finger		Exp		XP Pro	Feb 10
2904-CGU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	128G SSD	11b/g/n	WWAN upg		Finger	Blue	Exp		XP Pro	Feb 10
2904-FPU	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger	Blue	Exp	vPro	XP Pro	Feb 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm														
Weight ²	6-cell: starting at 3.94 lb (1.79kg)														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr														
Chipset	Mobile Intel QS57 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Multicard Reader	None														
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
11b/g/n	<i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card														
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2														
WWAN upg	<i>Some:</i> Wireless WAN upgradable														
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier	<i>Some:</i> AT&T®, contract required with service provider														
Modem	None														
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator														
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information

US model announced February 2, 2010; previous models on January 7, 2010

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ThinkPad® T410s 2904 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Card slot	Intel vPro	Preload	Avail date
2904-FZU	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Express	vPro	Pro 64	Mar 10
2904-GGU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	250G 5400	Intel 6200	WWAN upg		Express	vPro	Pro 64	May 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm													
Weight ²	6-cell: starting at 3.94 lb (1.79kg)													
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										Supports ThinkVantage® technologies			
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr													
Chipset	Mobile Intel QS57 Express Chipset													
ExpressCard/34	One slot (ExpressCard/34)													
Multicard Reader	None													
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express Mini Card slots													
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
WWAN upg	Wireless WAN upgradable													
Modem	None													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

US model announced May 4, 2010; previous model on March 2, 2010

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(SN2-7) May 2010

ThinkPad® T410s 2904 (Switchable) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2904-G2U	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	3-in-1	vPro	Pro 64	Mar 10
2904-GEU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	250G 5400	Intel 6200	WWAN upg		Blue	3-in-1	vPro	Pro 64	May 10
2904-GFU	i5-540M	2.53	3.06	2GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200	WWAN upg		Blue	3-in-1	vPro	Pro 64	May 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @75Hz(integrated) or 85Hz(discrete); 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @60Hz	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm	Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Weight ²	<i>6-cell:</i> starting at 3.94 lb (1.79kg)	
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	<i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr	
Chipset	Mobile Intel QS57 Express Chipset	
ExpressCard/34	None	
Multicard Reader	3-in-1 reader (MMC, SD, SDHC)	
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2	
WWAN upg	Wireless WAN upgradable	
Modem	None	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

US models announced May 4, 2010; previous model on March 30, 2010

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(SN2-8) May 2010

ThinkPad® T410s 2912 (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2912-2AU	i5-520M	2.40	2.93	3GB	14.1" WXGA+		120G 5400	11b/g/n	WWAN upg	Finger		Express	No	XP Pro	Feb 10
2912-2BU	i5-520M	2.40	2.93	3GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	Finger	Blue	Express	No	XP Pro	Feb 10

• These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 120GB⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Camera	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Integrated graphics	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
TrackPoint®	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Touchpad	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm														
Weight ²	6-cell: starting at 3.94 lb (1.79kg)														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr														
Chipset	Mobile Intel QS57 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Multicard Reader	None														
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card														
WWAN upg	Wireless WAN upgradable														
Modem	None														
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced January 7, 2010

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ThinkPad® T410s 2912 (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide- screen display	Multi- Touch Screen	Cam- era	Disk SATA GB ^s rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger reader	Blue- tooth	Card slot	Intel vPro	Whorse (W) Gbl (G)	Preload	Avail date
2912-A0U	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA+		120G 5400	11b/g/n		upg		Exp		Pro 32		Feb 10
2912-21U	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA+	2.0M	128G SSD	WiMAX		Gobi	Fing	Blue 5-in-1	vPro	Pro 32		Feb 10
2912-22U	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA+	Multi 2.0M	128G SSD	Intel 6200 ²⁸		upg	Fing	Blue Exp	vPro	Pro 32	G	Feb 10
2912-23U	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA+		120G 5400	11b/g/n		upg	Fing	Blue Exp		Pro 32	G	Feb 10
2912-25U	i5-520M	2.40	2.93	2+1GB	1066	14.1" WXGA+		128G SSD	Intel 6200		upg	Fing	Blue Exp	vPro	Pro 32	G	Feb 10
2912-2DU	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA+	2.0M	128G SSD	Intel 6200		Gobi	Fing	Blue Exp	vPro	Pro 32		Feb 10
2912-3PU	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA+	2.0M	250G 5400	Intel 6200		upg	Fing	Blue Exp	vPro	Pro 32		Mar 10
2912-3RU	i5-520M	2.40	2.93	4GBx1	1333	14.1" WXGA+	2.0M	250G 5400	Intel 6200		upg	Fing	Blue Exp	vPro	Pro 64	G	Mar 10
2912-3UU	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA+		250G 5400	Intel 6200		upg	Blue	Exp	vPro	Pro 64	G	May 10
2912-3VU	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA+	2.0M	80G SSD	Intel 6200		upg		Blue Exp	vPro	Pro 64	G	May 10

- *These models have a depot repair service 3-year limited warranty*

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch) <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Camera		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm	
Weight ²	<i>6-cell:</i> starting at 3.94 lb (1.79kg)	
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	<i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr	
Chipset	Mobile Intel QS57 Express Chipset	
ExpressCard/34	<i>Some:</i> One slot (ExpressCard/34)	
Multicard Reader	<i>Some:</i> 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	Supports ThinkVantage® technologies
PCIe Mini Card	Two PCI Express Mini Card slots	65-watt AC adapter
11b/g/n	<i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card	ThinkPad Roll Cage (one-piece magnesium frame)
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2	EPEAT™ Gold rating
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX	ENERGY STAR® 5.0-compliant
WWAN upg	<i>Some:</i> Wireless WAN upgradable	RoHS-compliant
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	International Warranty Service ¹⁷
Carrier	21U/2DU models: Verizon®, contract required with service provider	24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Modem	None	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator	ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	ThinkPlus 4-year LOR 9x5 NBD 45K6022
Intel AMT	Intel Active Management Technology (iAMT)	ThinkPlus 5-year LOR 9x5 NBD 45K6024
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus 4-year P&L P/U Depot 45K6023
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus 5-year P&L P/U Depot 45K6025
Security chip	Trusted Platform Module, TCG 1.2-compliant	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

 US models announced May 4, 2010; previous models on January 7, March 2, or March 30, 2010

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(SN2-4) May 2010

ThinkPad® T410s 2912 (Switchable) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Intel vPro	Whorse (W) Gbl (G)	Avail date
2912-24U	i5-520M	2.40	2.93	2+1GB	1066	14.1" WXGA+	250G 5400	Intel 6200 ²⁸	upg			vPro	Pro 32	G Mar 10
2912-2CU	i5-540M	2.53	3.06	2+1GB	1066	14.1" WXGA+	80G SSD	Intel 6200	Gobi	AT&T ²³	Finger	vPro	Pro 32	Mar 10
2912-30U	i5-540M	2.53	3.06	2+1GB	1066	14.1" WXGA+	128G SSD	Intel 6300 ²⁸	Gobi	AT&T	Finger	vPro	Pro 32	Mar 10
2912-40U	i5-540M	2.53	3.06	4GBx1	1333	14.1" WXGA+	250G 5400	WiMAX	upg		Finger	vPro	Pro 32	Mar 10
2912-3WU	i5-540M	2.53	3.06	2GBx1	1066	14.1" WXGA+	250G 5400	Intel 6200	upg			vPro	Pro 64	G May 10

• These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some: 80GB⁸ or 128GB</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some: 250GB</i> (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>		
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some: MultiTouch</i> (touchscreen supports two-finger touch) Camera on top of screen, 2.0-megapixel, fixed focus		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2048x1536 (VGA) @75Hz(integrated) or 85Hz(discrete); 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP)@60Hz</i>		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint™ pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr		
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset None 3-in-1 reader (MMC, SD, SDHC) Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card Intel 6200 ²⁸ WiMAX Intel 6300 ²⁸ WWAN upg Gobi™ 2000 Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some: 11a/b/g/n wireless⁴, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2</i> <i>Some: 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX</i> <i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3</i> <i>Some: Wireless WAN upgradable</i> <i>Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider</i> <i>Some: AT&T®, contract required with service provider</i>		Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>		ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information

US models announced March 30 or May 4, 2010; previous models on March 30, 2010

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(SN2-9) May 2010

ThinkPad® T410s 2924 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

		Max			Wide- screen display	Multi- Touch Screen	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Card slot	Intel vPro	Whorse (W)			
Type-model	Processor	Base (GHz)	turbo (GHz)	Memory										Gbl (G)	Preload	GMP(P)	Avail date
	2924-22U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	Multi	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Exp	vPro	Pro 32	G P	Feb 10
	2924-23U	i5-520M	2.40	2.93	2GB	14.1" WXGA+			120G 5400	11b/g/n	WWAN upg	Finger	Exp	vPro	Pro 32	G P	Feb 10
	2924-25U	i5-520M	2.40	2.93	3GB	14.1" WXGA+			128G SSD	Intel 6200	WWAN upg	Finger	Exp	vPro	Pro 32	G P	Feb 10
🔋	2924-3UU	i5-520M	2.40	2.93	2GB	14.1" WXGA+			250G 5400	Intel 6200	WWAN upg		Exp	vPro	Pro 64	G P	May 10
🔋	2924-3VU	i5-520M	2.40	2.93	2GB	14.1" WXGA+		2.0M	80G SSD	Intel 6200	WWAN upg		Exp	vPro	Pro 64	G P	May 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
SATA disk															
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch) <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Camera															
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm														
Weight ²	6-cell: starting at 3.94 lb (1.79kg)														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr														
Chipset	Mobile Intel QS57 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Multicard Reader	None														
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card 11b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card														
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2														
WWAN upg	Wireless WAN upgradable														
Modem	None														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

See footnotes for important warranty information

US models announced May 4, 2010; previous models on January 7, 2010

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(SN2-5) May 2010

ThinkPad® T410s 2924 (Switchable) - Onsite (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Whorse (W) Gbl (G) Avail date
2924-24U	i5-520M	2.40	2.93	3GB	14.1" WXGA+	2.0M	250G 5400	Intel 6200 ²⁸	WWAN upg	None	Blue	3-in-1 vPro	Pro 32 G P Mar 10
2924-3WU	i5-540M	2.53	3.06	2GB	14.1" WXGA+	2.0M	250G 5400	Intel 6200	WWAN upg	None	Blue	3-in-1 vPro	Pro 64 G P May 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	Camera on top of screen, 2.0-megapixel, fixed focus												
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @ 75Hz(integrated) or 85Hz(discrete); 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @ 60Hz												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm												
Weight ²	6-cell: starting at 3.94 lb (1.79kg)												
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr												
Chipset	Mobile Intel QS57 Express Chipset												
ExpressCard/34	None												
Multicard Reader	3-in-1 reader (MMC, SD, SDHC)												
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies		
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2												
WWAN upg	Wireless WAN upgradable												
Modem	None												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	None												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information

US model announced May 4, 2010; previous model on March 30, 2010

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ThinkPad® T410s 2912 (Education) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Multi-Touch Screen	Cam-era	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2912-52U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	250G 5400	Intel 6200 ²⁸	WWAN upg	Finger	None	Exp	vPro	Pro 32	Feb 10
2912-53U	i5-520M	2.40	2.93	3GB	14.1" WXGA+	<i>Multi</i>	2.0M 128G SSD	Intel 6200	WWAN upg	Finger	None	Exp	vPro	Pro 32	Feb 10

- **These models have a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software • ThinkVantage Power Manager • ThinkVantage Toolbox • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch) Camera on top of screen, 2.0-megapixel, fixed focus	
Camera		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr	Supports ThinkVantage® technologies
Battery - type Battery - life ¹⁰		65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None None Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	ThinkPlus™, ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security Security chip Fingerprint reader		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced January 7, 2010

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(SN2-6) January 2010

ThinkPad® T410si 2901 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2901-AKU	i3-330M	2.13	2GB	14.1" WXGA+	2.0M	250G 5400	DVD±RW	Intel 1000	WWAN upg	None	Blue	Express	No	Pro 32	Mar 10

- *This small and medium business (SMB) model is part of the US TopSeller™ Program*

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB ⁸ (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US model announced March 2, 2010

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ThinkPad® T410si 2904 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Multi-Touch Screen	Cam-era	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Blue/Fing	Card slot	Intel vPro	Preload	Avail date
2904-CUU	i3-330M	2.13	2GB	14.1" WXGA+	Multi	2.0M	250G 5400	Intel 1000	WWAN upg	Verizon ¹⁶	Yes	Express	No	Pro 32	Feb 10
2904-CVU	i3-330M	2.13	2GB	14.1" WXGA+		2.0M	250G 5400	Intel 1000	Gobi 2000		Yes	Express	No	Pro 32	Feb 10
2904-CWU	i3-330M	2.13	3GB	14.1" WXGA+		2.0M	80G SSD	Intel 1000	WWAN upg		Yes	Express	No	Pro 32	Feb 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch) Camera on top of screen, 2.0-megapixel, fixed focus	
Camera		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr	Supports ThinkVantage® technologies
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Intel 1000 WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Verizon®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced February 2, 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09
Ultrabay Slim Blu-ray Burner II (SATA)	43N3230	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s	43N3292	ann 04/20/10

Storage and removable storage

1.8" 250GB Disk SATA 3.0Gb/s (5400 rpm)	43N3418	ann 06/23/09
500GB Disk SATA 3.0Gb/s (5400 rpm) ⁵¹	43N3420	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁵¹	43N3423	ann 01/07/10

⁵¹ Can be used with *Serial ATA Hard Drive Bay Adapter III* 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8"(2.5" cover) ⁴⁹	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover) ⁴⁹	43N3417	ann 06/23/09

⁴⁹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III* 43N3412 in Ultrabay via the removable adaptive cover provided with the drive

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Wireless WAN (Mini PCI Express)

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad Port Replicator Series 3	433610W	ann 06/23/09
ThinkPad Mini Dock Series 3	433710U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3	433810U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 - Mobile WS	433820U	ann 01/07/10

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

ThinkPad Battery 59+ (6-cell)	51J0497	ann 06/23/09
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann 08/25/09
⁴³ Used in Ultrabay Slim bay.		
ThinkPad External Battery Charger	40Y7625	ann 09/20/05

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• BlackBerry charge tip (L8a)	41R4478	ann 12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann 05/05/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Up to 15.6" widescreen models:

Wenger Backpack for Lenovo	57Y4271	ann 01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann 01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann 01/07/10

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad T500



ThinkPad Business Topload Case
43R2476



Lenovo ThinkPad T500 with
T500/R500/W500 Series 15W Privacy Filter
43R2474



Lenovo ThinkPad T500



Lenovo ThinkPad T500



ThinkPad Battery 42 (3-cell, bay)
57Y4536

ThinkPad® T500 2242 (GMA) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Cam-era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Pre-load	Avail date
2242-8QU	P8600	2.40	2GB	15.4" WXGA	LED		GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Fing		XP Pro	Oct 09
2242-8RU	P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	320G 5400	DVD±RW	Intel 5100	None	None	Fing	Blue	XP Pro	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 1-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• Fingerprint Software• Lenovo System Toolbox• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 250GB ⁸ (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus		
Camera			
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536 @ 75Hz		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		Supports ThinkVantage® technologies
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm		ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Weight ²	6-cell: starting at 5.9 lb (2.7kg)		
Case color	Black		
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)		
ExpressCard/54	One slot (Type I, Type II), CardBus 32-bit		
PC Card	None		
Smart Card read	None		
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express	Three Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
WWAN upg	None		
2G Turbo	None		
UWB	None		
Modem	56K V.92 ⁶ modem		
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator		
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced October 22, 2009

✦ Intel Centrino® 2 processor technology

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(CR5-15) October 2009

ThinkPad® T500 2242 (GMA) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Cam-era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Pre-load	Avail date
2242-8SU	P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	320G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Fing	Blue	Pro 32	Oct 09

• This small and medium business (SMB) model is part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software• ThinkVantage Toolbox• Skype™ for Windows• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536 @ 75Hz		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm		
Weight ²	<i>6-cell:</i> starting at 5.9 lb (2.7kg)		
Case color	Black		
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	<i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit		Supports ThinkVantage® technologies
ExpressCard/54	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PC Card	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
Smart Card read			ThinkPlus 2-year LOR 9x5 NBD 45K5969
Multicard reader			ThinkPlus 3-year LOR 9x5 NBD 45K5970
Ports			ThinkPlus 4-year LOR 9x5 NBD 45K5973
Mini PCI Express			ThinkPlus 5-year LOR 9x5 NBD 45K5975
Intel 5100 ²⁸			ThinkPlus 2-year P&L P/U Depot 45K5971
WWAN upg			ThinkPlus 3-year P&L P/U Depot 45K5972
2G Turbo			ThinkPlus 4-year P&L P/U Depot 45K5974
UWB			ThinkPlus 5-year P&L P/U Depot 45K5976
Modem	56K V.92 ⁶ modem		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US model announced October 22, 2009

Intel Centrino® 2 processor technology

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(CR5-16) October 2009

ThinkPad® T500 2243 (GMA) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Preload	Avail date
2243-93U	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	320G 7200	DVD±RW	Intel 5100 ²⁸	None	None	Finger	Blue	XP Pro	Oct 09
2243-95U	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	80G SSD	DVD±RW	Intel 5100	None	None	Finger	Blue	XP Pro	Oct 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 80GB® Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive,		
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz		Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)		
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced October 22, 2009

Intel Centrino® 2 processor technology

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(CR5-17) October 2009

ThinkPad® T500 2243 (GMA) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Preload	Avail date
2243-94U	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	320G 7200	DVD±RW	Intel 5100 ²⁸		None	Finger	Blue	Pro 32	Oct 09
2243-9MU	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	320G 7200	DVD±RW	Intel 5100	Verizon ¹⁶	None	Finger	Blue	Pro 32	Nov 09
2243-9PU	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	128G SSD	DVD±RW	Intel 5100		None	Finger	Blue	Pro 32	Nov 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-Italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm 6-cell: starting at 5.9 lb (2.7kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	Supports ThinkVantage® technologies
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Mini PCI Express Intel 5100 ²⁸ Verizon ¹⁶	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon®	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021
2G Turbo UWB Modem	None None 56K V.92 ⁶ modem	ThinkPlus 4-year LOR 9x5 NBD 45K6022
Bluetooth™ Ethernet Intel AMT	Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None	ThinkPlus 5-year LOR 9x5 NBD 45K6024
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	ThinkPlus 4-year P&L P/U Depot 45K6023
Security Security chip	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	ThinkPlus 5-year P&L P/U Depot 45K6025
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available	

See footnotes for important warranty information

Intel Centrino® 2 processor technology

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US models announced November 3, 2009; previous model on October 22, 2009

(CR5-18) March 2010

ThinkPad® T500 2082 (Switchable) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ^a rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Preload	Avail date
2082-BKU P8700	P8700	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	±Intel 5100 ²⁸			9	XP Pro	Oct 09
2082-BMU P8700	P8700	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	±Intel 5100	AT&T ²³		9	XP Pro	Oct 09
2082-BNU T9600	T9600	2.80	4GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	±Intel 5100			9	XP Pro	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have an EasyServ™,19 depot repair service 3-year limited warranty

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8700 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus; P8700: 3MB L2 cache; T9600: 6MB L2 cache										Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Switches between discrete and integrated graphics (Windows 7 only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm													
Weight ²	9-cell: starting at 6.2 lb (2.8kg)													
Case color	Black													
Case material	<i>Top:</i> Super-Elastic Polycarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	9-cell: up to 9.4 hr; 9-cell plus Ultrabay battery: up to 10.9 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										Supports ThinkVantage® technologies			
ExpressCard/54	One slot (ExpressCard/34 or ExpressCard/54)													
PC Card	One slot (Type I, Type II), CardBus 32-bit													
Smart Card read	None													
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)													
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
WWAN upg	None													
AT&T ²³	<i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adapter, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®													
2G Turbo	None													
UWB	None													
Modem	56K V.92 ⁶ modem													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	None													
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades ²² available										ThinkPlus™,22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced October 22, 2009

• Intel Centrino® 2 processor technology

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(CR5-14) March 2010

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or Cam- era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo	Blue/Card Fing slot	Whorse (W) Gbl (G) Avail Preload date
2089-2JU	P8400 2.26	1GB 15.4" WXGA			GMA 80G 5400 Combo	Intel 5100 ²⁸		WWAN upg		6 Yes PC	B32	G Aug 08
2089-2KU	T9400 2.53	2GB 15.4" WXGA			Cam GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg	2G Turbo	6 Yes PC	B32	WG Aug 08
2089-2LU	T9400 2.53	2GB 15.4" WXGA			Cam GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg	2G Turbo	9 Yes PC	B32	W Aug 08
2089-2MU	T9400 2.53	2GB 15.4" WXGA			Cam GMA 160G 7200 DVD±RW	Intel 5100		WWAN upg		6 Yes PC	B32	W Aug 08
2089-3HU	T9400 2.53	2GB 15.4" WXGA			Cam GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg		6 Yes PC	B32	G Aug 08
2089-3JU	T9400 2.53	2GB 15.4" WXGA			Cam GMA 160G 5400 DVD±RW	Intel 5100		AT&T ²³	2G Turbo	9 Yes PC	B32	W Aug 08
2089-4XU	T9400 2.53	2GB 15.4" WXGA LED			Cam GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg		6 Yes PC	B32	WG Sep 08
2089-58U	T9400 2.53	2GB 15.4" WXGA			GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg		6 Yes PC	XP	G Sep 08
2089-59U	P8400 2.26	1GB 15.4" WXGA			GMA 80G 5400 Combo	Intel 5100		WWAN upg		6 Yes PC	XP	Sep 08
2089-5WU	P8600 2.40	2GB 15.4" WSXGA+			GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg		6 Smart	B32	TAA Oct 08
2089-5ZU	P8600 2.40	2GB 15.4" WXGA LED			GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg		6 Yes PC	B32	WG Dec 08
2089-7QU	P8700 2.53	2GB 15.4" WXGA LED			GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg		6 Yes PC	B32	Jun 09
2089-82U	P8400 2.26	2GB 15.4" WXGA LED			GMA 160G 5400 DVD±RW	Intel 5100		WWAN upg		6 Yes PC	B32	Jul 09
2089-83U	P8700 2.53	3GB 15.4" WXGA LED			Cam GMA 250G 5400 DVD±RW	11n ²⁸		WWAN upg		6 Yes PC	B32	Jul 09
US Govt (TAA) ⁵ Processor	5WU: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8400, P8600, P8700 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600/P8700: 3MB L2 cache; T9400: 6MB L2										Preloaded operating system²⁰ - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 ♦ <i>Vista models:</i> Vista Premium logo	
Memory	1GB, 2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)	
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio											
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus											
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)											
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit <i>Some:</i> Smart Card reader 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies	
Mini PCI Express Intel 5100 ²⁸ 11n ²⁸ WWAN upg Verizon ¹⁶ AT&T ²³ 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus 4-year LOR 9x5 NBD 45K6022	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										ThinkPlus 5-year LOR 9x5 NBD 45K6024	
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty												

See footnotes for important warranty information

♦ Intel Centrino® 2 with vPro™ technology

⚡ US models announced July 7, 2009; previous models on Aug 5, Sep 23, October 7, December 2, 2008 or June 2, 2009

⚡ US models withdrawn effective August 2009 or March 2010

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(CR5-3) March 2010

ThinkPad® T500 2055 (Switchable)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Mem- ory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo slot	Bat- tery Blue/ Global (G)	Workhorse (W) Global (G)Avail Preload date	
✗ 2055-2BU	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650 80G	5400 Combo	✧ Intel 5100	28	WWAN upg	PC	6	Yes B32 G Aug 08	
2055-2CU	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650 160G	5400 DVD±RW	✧ Intel 5100		WWAN upg	PC	6	Yes B32 W G Aug 08	
2055-2EU	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650 160G	7200 DVD±RW	✧ Intel 5100		Verizon ¹⁶	2G	PC	9	Yes B32 W Aug 08
2055-3AU	T9600	2.80	4GB	15.4"	WSXGA+	Cam	GMA, 3650 160G	7200 DVD±RW	✧ Intel 5100		WWAN upg	2G	PC	9	Yes B32 W G Aug 08
2055-45U	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650 160G	7200 DVD±RW	✧ Intel 5100		WWAN upg	PC	9	Yes B32 G Aug 08	
✗ 2055-2DU	T9400	2.53	2GB	15.4"	WSXGA+	Cam	GMA, 3650 160G	7200 DVD±RW	✧ Intel 5100		WWAN upg	UWB	PC	6	Yes B32 W Sep 08
✗ 2055-2VU	T9400	2.53	2GB	15.4"	WSXGA+	Cam	GMA, 3650 160G	7200 DVD±RW	✧ Intel 5300	28	WWAN upg	UWB	Smart 9		B32 Sep 08
2055-5TU	T9400	2.53	2GB	15.4"	WXGA	LED Cam	GMA, 3650 160G	7200 DVD±RW	✧ Intel 5300		WWAN upg	PC	9	Yes B32 W G Sep 08	
2055-5UU	T9400	2.53	2GB	15.4"	WXGA	LED Cam	GMA, 3650 64G	SSD DVD±RW	✧ Intel 5300		WWAN upg	PC	9	Yes B32 Sep 08	
2055-63U	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650 160G	7200 DVD±RW	✧ Intel 5100		WWAN upg	PC	9	Yes XP G Sep 08	
✗ 2055-7GU	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650 160G	7200 DVD±RW	✧ Intel 5300		WWAN upg	Smart 9		B32 TAA Oct 08	
2055-7LU	P8600	2.40	2GB	15.4"	WSXGA+		GMA, 3650 160G	7200 DVD±RW	✧ Intel 5100		WWAN upg	PC	9	Yes B32 W G Dec 08	
2055-9KU	P8700	2.53	3GB	15.4"	WXGA	LED Cam	GMA, 3650 80G	SSD DVD±RW	✧ Intel 5100		WWAN upg	PC	6	Yes B32 Jun 09	
2055-9LU	P8700	2.53	3GB	15.4"	WXGA	LED	GMA, 3650 160G	7200 DVD±RW	✧ Intel 5100		WWAN upg	PC	6	Yes B32 Jun 09	
US Govt (TAA) ⁵ Processor												7GU: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8600, P8700, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600/P8700: 3MB L2 cache; T9400/T9600: 6MB L2			
Memory												2GB, 3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available			
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk												<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 64GB ⁸ or 80GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 80GB (5400 rpm), 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, shock mounted storage			
Widescreen display												<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio			
Camera												<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus			
Switchable graphics												Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3650, PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536 @75Hz (VGA, DisplayPort)			
Keyboard TrackPoint® Touch pad ThinkLight™												89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰												6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm 6-cell: starting at 5.9 lb (2.7kg); 9-cell: starting at 6.2 lbs (2.8kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr			
Chipset												Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit <i>Some:</i> Smart Card reader 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
ExpressCard/54 PC Card Smart Card read Multicard reader Ports												One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit <i>Some:</i> Smart Card reader 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Mini PCI Express												Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon			
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support												<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator <i>Some:</i> Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole <i>Some:</i> Fingerprints reader on palm rest, swipe sensor, supports security chip			
Security Security chip Fingerprint reader												Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports security chip			
Limited warranty ¹²												3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available			
												Preloaded operating system ²⁰ - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 ✧ <i>Vista models:</i> Vista Premium logo Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)			
												Supports ThinkVantage® technologies			
												90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
												ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

✦ US models announced June 2, 2009; previous models on Aug 5, Sep 23, October 7, or December 2, 2008

✗ US models withdrawn effective August 2009

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(CR5-4) March 2010

ThinkPad® T500 2055 (Switchable) - July 2009

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Card slot	Bat- tery Blue/ Fing	Avail Preload date
2055-9RU	P8400	2.26	2GB	15.4" WXGA	LED	Cam	GMA, 3650	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	PC	6	Yes B32 Jul 09
2055-9SU	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA, 3650	250G FDE	DVD±RW	11n ²⁸	WWAN upg	None	PC	6	Yes B32 Jul 09
2055-9TU	T9400	2.53	2GB	15.4" WSXGA+		Cam	GMA, 3650	250G FDE	DVD±RW	Intel 5100	WWAN upg	None	PC	6	Yes B32 Jul 09

• These models have a depot repair service 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8400, P8700, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8700: 3MB L2 cache; T9400: 6MB L2										Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ◇ Vista Premium logo Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)									
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Supports ThinkVantage® technologies 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty									
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (7200 rpm) or 250GB (7200 rpm) Full Disk Encryption [FDE] / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™																			
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio																			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus																			
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)																			
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions																			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr																			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit																			
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (Type I, Type II), CardBus 32-bit 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																			
Mini PCI Express Intel 5100 ²⁸ 11n ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1																			
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack																			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports security chip																			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available																			

See footnotes for important warranty information
US models announced July 7, 2009

◇ Intel Centrino® 2 with vPro™ technology

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(CR5-13) July 2009

⚡ US model withdrawn effective March 2010

ThinkPad® T500 2241 (GMA) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo	Blue- tooth	Whorse (W) GMP (P) Avail Preload Gbl (G) date
2241-3WUP	P8400 2.26	1GB	15.4" WXGA			GMA 80G	5400	Combo	Intel 5100 ²⁸	WWAN upg	2G Turbo	6	Blue Bus 32 GP Aug 08
2241-3XU	T9400 2.53	2GB	15.4" WXGA		Cam	GMA 160G	5400	DVD±RW	Intel 5100	WWAN upg		6	Blue Bus 32 WGP Aug 08
2241-3YU	T9400 2.53	2GB	15.4" WXGA		Cam	GMA 160G	5400	DVD±RW	Intel 5100	WWAN upg		6	Blue Bus 32 GP Aug 08
2241-4XU	T9400 2.53	2GB	15.4" WXGA	LED	Cam	GMA 160G	5400	DVD±RW	Intel 5100	WWAN upg		6	Blue Bus 32 WGP Sep 08
2241-58U	T9400 2.53	2GB	15.4" WXGA			GMA 160G	5400	DVD±RW	Intel 5100	WWAN upg		6	Blue XP Pro GP Sep 08
2241-5ZU	P8600 2.40	2GB	15.4" WXGA	LED		GMA 160G	5400	DVD±RW	Intel 5100	WWAN upg		6	Blue Bus 32 WGP Dec 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400/P8600</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache	Preloaded operating system ²⁰ - <i>Some</i> : Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some</i> : Genuine Windows Vista Business 32 ✧ <i>Vista models</i> : Vista Premium logo Preloaded applications ¹⁴ (all OSES, only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (combo, DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (combo, DVD±RW)
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in one socket; one socket available	
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some</i> : CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some</i> : DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB ⁸ (5400 rpm), 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some</i> : 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i> : 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	<i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution</i> : 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell</i> : starting at 5.9 lb (2.7kg) Black <i>Top</i> : Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i> : Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell</i> : up to 6.3 hr; <i>6-cell plus Ultrabay battery</i> : up to 7.8 hr; <i>9-cell</i> : up to 9.4 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some</i> : Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

Supports ThinkVantage® technologies
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

♦ Intel Centrino® 2 with vPro™ technology

US model announced December 2, 2008; previous models on August 5 or September 23, 2008

US model withdrawn effective March 2010

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(CR5-5) December 2008

ThinkPad® T500 2056 (Switchable) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Mem- ory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Whorse (W) GMP (P) Avail Gbl (G) date
2056-4PU	T9400	2.53	2GB	15.4"	WSXGA+			GMA, 3650	80G	5400 Combo	Intel 5100 ²⁸	WWAN upg	6	B32 GP Aug 08
2056-4QU	T9400	2.53	2GB	15.4"	WSXGA+			GMA, 3650	160G	5400 DVD±RW	Intel 5100	WWAN upg	6	B32 WGP Aug 08
2056-4RU	T9400	2.53	2GB	15.4"	WSXGA+			GMA, 3650	160G	7200 DVD±RW	Intel 5100	WWAN upg	9	B32 GP Aug 08
2056-4SU	T9600	2.80	4GB	15.4"	WSXGA+	Cam		GMA, 3650	160G	7200 DVD±RW	Intel 5100	WWAN upg	2G Turbo	9 B32 WGP Aug 08
2056-5TU	T9400	2.53	2GB	15.4"	WXGA	LED Cam		GMA, 3650	160G	7200 DVD±RW	Intel 5300 ²⁸	WWAN upg	9	B32 WGP Sep 08
2056-63U	T9400	2.53	2GB	15.4"	WSXGA+			GMA, 3650	160G	7200 DVD±RW	Intel 5100	WWAN upg	9	XP GP Sep 08
2056-7LU	P8600	2.40	2GB	15.4"	WSXGA+			GMA, 3650	160G	7200 DVD±RW	Intel 5100	WWAN upg	9	B32 WGP Dec 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8600, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600: 3MB L2 cache; T9400/T9600: 6MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)			
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB ⁸ (5400 rpm), 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Some: 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio													
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3650, PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm 6-cell: starting at 5.9 lb (2.7kg); 9-cell: starting at 6.2 lbs (2.8kg) Black Top: Super-Elastic Polycarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)													
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Security Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038			
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

◇ Intel Centrino® 2 with vPro™ technology

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Ⓜ US model announced December 2, 2008; previous models on August 5 or September 23, 2008

(CR5-6) December 2008

Ⓜ US model withdrawn effective August 2009

ThinkPad® T500 2089 (GMA) - Education

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue- tooth	Workhorse (W) Global (G) Avail date
⌘ 2089-E1U	P8400	2.26	2GB	15.4" WXGA		Cam	GMA	160G 5400	DVD±RW	✦ Intel 5100 ²⁸	WWAN upg	None	6 Blue	Bus 32 No Aug 08
2089-E2U	T9400	2.53	2GB	15.4" WXGA		Cam	GMA	250G 5400	DVD±RW	✦ Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Aug 08
2089-E3U	T9400	2.53	2GB	15.4" WXGA		Cam	GMA	160G 7200	DVD±RW	✦ Intel 5100	WWAN upg	None	9 Blue	Bus 32 No Aug 08
2089-E4U	P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	160G 7200	DVD±RW	✦ Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Dec 08
⌘ 2089-E5U	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	160G 5400	DVD±RW	✦ Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Mar 09

• **These models have a depot repair service 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400/P8600/8700: 3MB L2 cache; T9400: 6MB L2 cache</i>	Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ✦ Vista Premium logo Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021
ThinkPlus 4-year LOR 9x5 NBD 45K6022
ThinkPlus 5-year LOR 9x5 NBD 45K6024
ThinkPlus 4-year P&L P/U Depot 45K6023
ThinkPlus 5-year P&L P/U Depot 45K6025
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

⌘ US model announced March 24, 2009; previous models on August 5 or December 2, 2008

⌘ US model withdrawn effective March 2010

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(CR5-7) April 2009

ThinkPad® T500 2055 (Switchable) - Education

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Switchable graphics	Disk SATA GB ^a rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Battery cells	Workhorse (W) Global (G) Avail date
2055-E1U	T9400	2.53	2GB	15.4" WSXGA+	Cam GMA, HD 3650	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	9	Bus32	No Aug 08
2055-E2U	T9400	2.53	2GB	15.4" WSXGA+	Cam GMA, HD 3650	250G 5400	DVD±RW	Intel 5100	WWAN upg	None	9	Bus32	No Aug 08
2055-E3U	T9600	2.80	3GB	15.4" WSXGA+	Cam GMA, HD 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	9	Bus32	No Mar 09

• These models have a depot repair service 3-year limited warranty

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ✧ Vista Premium logo Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm	
Weight ²	<i>9-cell:</i> starting at 6.2 lb (2.8kg)	
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	<i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
Smart Card Read	None	
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)	
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)	
2G Turbo	None	
UWB	None	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

		Supports ThinkVantage® technologies
		90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378
		ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021
		ThinkPlus 4-year LOR 9x5 NBD 45K6022
		ThinkPlus 5-year LOR 9x5 NBD 45K6024
		ThinkPlus 4-year P&L P/U Depot 45K6023
		ThinkPlus 5-year P&L P/U Depot 45K6025
		Post-warranty annual maintenance agreements at **lenovo.com/thinkplus/warranty**

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

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US model announced March 24, 2009; previous models on August 5, 2008

(CR5-8) April 2009

ThinkPad® T500 2241 (GMA) - Education (Onsite)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue- tooth	Workhorse (W) Global (G) Avail date
2241-E1U	P8400	2.26	2GB	15.4" WXGA		Cam	GMA	160G 5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	6 Blue	Bus 32 No Aug 08
2241-E2U	T9400	2.53	2GB	15.4" WXGA		Cam	GMA	250G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Aug 08
2241-E3U	T9400	2.53	2GB	15.4" WXGA		Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	9 Blue	Bus 32 No Aug 08
2241-E4U	P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Dec 08
2241-E5U	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	160G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Mar 09

• These models have a limited onsite service²⁴ 3-year limited warranty

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400/P8600/P8700</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache	Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 - Vista Premium logo
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, Displayport), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

Ⓜ US model announced March 24, 2009; previous models on August 5 or December 2, 2008

Ⓜ US model withdrawn effective March 2010

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(CR5-9) April 2009

ThinkPad® T500 2056 (Switchable) - Education (Onsite)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Mem- ory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo cells	Bat- tery	Workhorse (W) Global (G) Avail date
2056-E1U T9400	2.53	2GB	15.4"	WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	None	9	No Aug 08
2056-E2U T9400	2.53	2GB	15.4"	WSXGA+	Cam	GMA, HD 3650	250G 5400	DVD±RW	❖ Intel 5100	WWAN upg	None	9	No Aug 08
2056-E3U T9600	2.80	3GB	15.4"	WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg	None	9	No Mar 09

• **These models have a limited onsite service²⁴ 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ❖ Vista Premium logo		
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus												
Camera	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>												
Switchable graphics	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Keyboard	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm 9-cell: starting at 6.2 lb (2.8kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic												
TrackPoint®	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim 9-cell: up to 9.4 hr; 9-cell plus Ultrabay battery: up to 10.9 hr												
Touch pad	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												
ThinkLight™	One ExpressCard/34 or ExpressCard/54 One Type I or Type II slot, CardBus 32-bit												
Dimensions ³	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Weight ²	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)												
Case material	None												
Battery - type	None												
Battery - life ¹⁰	56K V.92 ⁶ modem												
Chipset	Bluetooth 2.1 wireless, LED indicator												
ExpressCard slot	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
PC Card Std slot	Intel Active Management Technology (iAMT)												
Smart Card Read	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Multicard Reader	Power-on password, hard disk password, supervisor password, security keyhole												
Ports	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Mini PCI Express	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Intel 5100 ²⁸	Limited warranty¹² 3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												
WWAN upg													
2G Turbo													
UWB													
Modem													
Bluetooth™													
Ethernet													
Intel AMT													
Audio support													
Security													
Security chip													
Fingerprint reader													
Limited warranty ¹²													
3-years/1-year battery													
limited onsite service ²⁴													
8 am - 5 pm, Mon - Fri coverage													
excluding holidays													
next business day response time													
service upgrades ²²													
available													
Supports ThinkVantage® technologies													
90-watt (ATI graphics) AC adapter													
ThinkPad Roll Cage and Top Cover													
Roll Cage (one-piece magnesium)													
Climate Savers® certified													
EPEAT™ Silver rating													
ENERGY STAR® 5.0-compliant													
RoHS-compliant													
International Warranty Service ¹⁷													
24 hour x 7 day ¹⁸ toll-free support													
during the warranty period ¹²													
via 800-426-7378													
ThinkPlus™.22 4-year LOR 9x5 NBD													
45K6038													
Post-warranty annual maintenance													
agreements at													
lenovo.com/thinkplus/warranty													

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

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US model announced March 24, 2009; previous models on August 5, 2008

(CR5-10) April 2009



Lenovo® ThinkPad W500



ThinkPad Advanced Mini Dock
250410U



Lenovo ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500

ThinkPad® W500 4062 (Switchable) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Preload	Avail date
4062-5DU	T9600	2.80	3GB	15.4" WSXGA+	GMA, V5700	320G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	9	XP Pro	Oct 09
4062-5EU	T9900	3.06	3GB	15.4" WUXGA	GMA, V5700	320G 7200	DVD±RW	Intel 5100	WWAN upg	None	9	XP Pro	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- Power-packed engineering with Open GL graphics and ISV certifications

Positioning Processor	Mobile workstation; two spindles Intel® Core™ 2 Duo processor T9600 or T9900 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Switchable graphics	Switches between discrete and integrated graphics (Windows 7 only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>9-cell:</i> starting at 6.2 lb (2.8kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One (Type I, Type II), CardBus 32-bit	Supports ThinkVantage® technologies
ExpressCard/54 PC Card Smart Card Reader Multicard Reader Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced October 22, 2009

• Intel Centrino® 2 processor technology

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(CR5W-4) October 2009

ThinkPad® W500 4062 (Switchable) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Preload	Avail date
4062-5FU	T9900	3.06	4GB	15.4" WUXGA	GMA, V5700	320G 7200	DVD±RW	Intel 5100 ²⁸	AT&T ²³	None	9	Pro 64	Oct 09
4062-5GU	T9900	3.06	4GB	15.4" WUXGA	GMA, V5700	250G FDE	DVD±RW	Intel 5100	WWAN upg	None	9	Pro 64	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- Power-packed engineering with Open GL graphics and ISV certifications

Positioning Processor	Mobile workstation; two spindles Intel® Core™ 2 Duo processor T9900 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB⁸ (7200 rpm) or 250GB (7200 rpm) Full Disk Encryption [FDE] / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™												
Widescreen display Camera	15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus												
Switchable graphics	Switches between discrete and integrated graphics (Windows 7 only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>9-cell:</i> starting at 6.2 lb (2.8kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One (Type I, Type II), CardBus 32-bit										Supports ThinkVantage® technologies		
ExpressCard/54 PC Card Smart Card Reader Multicard Reader Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adapter, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T												
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180		
Security Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™, 19 depot repair service / service upgrades ²² available												

See footnotes for important warranty information
US models announced October 22, 2009

✦ Intel Centrino® 2 processor technology

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(CR5W-5) March 2010

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Whorse (W) Gbl (G)	Avail date
4061-2HU	T9400	2.53	4GB	15.4" WSXGA+		GMA, V5700	160G 7200	DVD±RW	Intel 5300 ²⁸	WWAN upg		9	Bus 32	Aug 08
✂ 4061-2KU	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	200G FDE	DVD±RW	Intel 5300	WWAN upg		9	Bus 32	Aug 08
4061-2ZU	T9400	2.53	4GB	15.4" WSXGA+		GMA, V5700	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg		9	Bus 32	W G Sep 08
✂ 4061-32U	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	160G 7200	DVD±RW	Intel 5300	WWAN upg	2GB Turbo	9	Bus 64	W Sep 08
4061-38U	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	160G 7200	DVD±RW	Intel 5300	WWAN upg		9	XP Pro	Sep 08
4061-3FU	T9400	2.53	2GB	15.4" WUXGA		GMA, V5700	160G 7200	DVD±RW	Intel 5300	WWAN upg	2GB Turbo	6	Bus 32	G Sep 08
✂ 4061-4PU	T9600	2.80	3GB	15.4" WUXGA	Cam	GMA, V5700	80G SSD	DVD±RW	Intel 5100	WWAN upg		9	Bus 32	Jun 09

• **Power-packed engineering with Open GL graphics and ISV certifications**

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 - <i>Some:</i> Genuine Windows Vista Business 64 ✧ <i>Vista models:</i> Vista Premium logo			
Memory	2GB, 3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm) or 200GB (7200 rpm) Full Disk Encryption [FDE] / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports second disk, Shock Mounted Hard Drive										Supports ThinkVantage® technologies 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio; <i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio										ThinkPlus™. 22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Switches between discrete and integrated graphics (Vista only), ATI Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536 @75Hz													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm													
Weight ²	9-cell: starting at 6.2 lb (2.8kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	9-cell: up to 9.4 hr; 9-cell plus Ultrabay battery: up to 10.9 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
Smart Card Read	None													
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)													
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3													
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)													
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator													
UWB	None													
Modem	56K V92 ⁶ modem													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information ✧ Intel Centrino® 2 with vPro™ technology

✂ US model announced June 2, 2009; previous models on August 5 or September 23, 2008

✂ US models withdrawn effective August 2009 or February 2010

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(CR5W-2) June 2009

ThinkPad® W500 4063 (Switchable) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ^o rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Whorse (W) GMP(P) Avail date		
4063-33U	T9400	2.53	4GB	15.4"	Cam	GMA, V5700	160G 7200 DVD±RW	❖ Intel 5100 ²⁸	WWAN upg			9	Bus 32	WGP	Sep 08
❖ 4063-34U	T9600	2.80	4GB	15.4"		GMA, V5700	160G 7200 DVD±RW	❖ Intel 5300 ²⁸	WWAN upg	2GB Turbo	9	Bus 64	W	Sep 08	
4063-3FU	T9400	2.53	2GB	15.4"		GMA, V5700	160G 7200 DVD±RW	❖ Intel 5300	WWAN upg	2GB Turbo	6	Bus 32	GP	Sep 08	

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Power-packed engineering with Open GL graphics and ISV certifications

Positioning Processor	Mobile workstation; two spindles Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® Vista® Business 32 - <i>Some:</i> Genuine Windows Vista Business 64 ✧ Vista Premium logo Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio; <i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio	
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus	
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ²	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>9-cell:</i> starting at 6.2 lb (2.8kg)	
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	<i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
Smart Card Read	None	
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)	
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express	Three Mini PCI Express slots	Supports ThinkVantage® technologies
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3	
WWAN upg	Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152)	
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator	
UWB	None	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years /1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

US models announced September 23, 2008

❖ US model withdrawn effective February 2010

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(CR5W-3) November 2008

Memory

1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann	03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann	03/17/09
4GB PC3-8500 DDR3 SODIMM	51J0493	ann	03/03/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
DVD-ROM Ultrabay Slim SATA 1.5Gb/s	43N3212	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s	43N3214	ann	08/05/08
DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s	43N3292	ann	04/20/10

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann	06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III* 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann	06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradeable models:

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann	08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
T500/R500/W500 Series 15W Privacy Filter	43R2474	ann	08/05/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 41+ (6-cell)	40Y6799	ann	01/05/06
ThinkPad Battery 41++ (9-cell)	40Y6797	ann	09/20/05
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann	08/25/09
⁴³ Used in Ultrabay Slim bay.			
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter</i> 40Y7659 or the adapter provided with the system.			

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• Palm device charge tip (L7)	41R4315	ann	12/18/07
• BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

More infoFor more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

More infoOther accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad T510



Lenovo ThinkPad T510



ThinkPad Mini Dock Plus Series 3
433810U



ThinkPad Battery 27++ (9-cell, slice)
57Y4545



Lenovo ThinkPad T510



Lenovo ThinkPad T510

ThinkPad® T510 4313 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
4313-28U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	DVD±RW	11b/g/n	None	None	None	6	No	Pro 32 Jan 10

• This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Adobe® Reader®• Adobe Flash® Player• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None 56K V.92 ⁶ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
 US model announced January 7, 2010

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 (KN1-1) January 2010

ThinkPad® T510 4314 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Processor	Max turbo		Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm		PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Bat-tery		Intel vPro	Preload	Avail date
		Base (GHz)	(GHz)				tooth	cells									
4314-2LU	i5-540M	2.53	3.06	3GB	15.6" HD	2.0M	320G	7200	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger	Blue	6	vPro	XP Pro	Jan 10
4314-2KU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G	7200	Intel 1000	WWAN upg			Blue	6		XP Pro	Jan 10
4314-7NU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G	7200	Intel 6200	WWAN upg		Finger	Blue	6	vPro	XP Pro	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	15.6" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm														
Weight ²	6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)														
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic														
Battery - type	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom														
Battery - life ¹⁰	6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr														
Chipset	Mobile Intel QM57 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Smart Card read	None														
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)														
Ports	Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider <i>Some:</i> AT&T®, contract required with service provider														
Carrier	56K V.92 ²⁶ modem														
Modem	Bluetooth 2.1 wireless, LED indicator														
Bluetooth™	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Ethernet	Intel Active Management Technology (iAMT)														
Intel AMT	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Audio support	Power-on password, hard disk password, supervisor password, security keyhole														
Security	Trusted Platform Module, TCG 1.2-compliant														
Security chip	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Fingerprint reader															
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available														

See footnotes for important warranty information

US model announced March 2, 2010; previous models on January 7, 2010

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(KN1-2) March 2010

ThinkPad® T510 4314 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload	Avail date
4314-36U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	WiMAX	WWAN upg	Finger	Blue	6	vPro	Pro 32	Jan 10
4314-2JU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	11b/g/n	WWAN upg		Blue	6		Pro 32	Jan 10
ES 4314-9BU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	9	vPro	Pro 64	May 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm 6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WiMAX WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades²² available	

See footnotes for important warranty information

ES US model announced May 4, 2010; previous models on January 7, 2010

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(KN1-3) May 2010

ThinkPad® T510 4313 (Discrete) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
4313-29U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	DVD±RW	11b/g/n	None	None	Blue	9	No	Pro 32 Feb 10

• This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Adobe® Reader®• Skype™ for Windows• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	Supports ThinkVantage® technologies
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Dimensions ³ Weight ²	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)	
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic	
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom	
Battery - life ¹⁰	<i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr	
Chipset	Mobile Intel QM57 Express Chipset	
ExpressCard/34 Smart Card read Multicard reader Ports	One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
 US model announced January 7, 2010

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 (KN1-4) January 2010

ThinkPad® T510 4314 (Discrete) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
4314-2NU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000	Verizon ¹⁶	Finger	Blue	vPro	XP Pro	Feb 10
4314-7PU	i5-520M	2.40	2.93	2GB	15.6" HD+	2.0M	320G 7200	Intel 6200	WWAN upg			Blue	vPro	XP Pro	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Presentation Director• ThinkVantage Productivity Center• Lenovo System Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr		
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider		
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Verizon®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹² 3-years/1-yr - battery depot repair service / service upgrades²² available			

See footnotes for important warranty information

US model announced March 2, 2010; previous model on January 7, 2010

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(KN1-5) March 2010

ThinkPad® T510 4314 (Discrete) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
4314-2MU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	Intel 1000	WWAN upg			9	Pro 32	Feb 10
4314-2PU	i5-540M	2.53	3.06	4GB	15.6" HD+	2.0M	500G 7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	9 vPro	Pro 32	Feb 10
4314-7QU	i5-520M	2.40	2.93	4GB	15.6" HD+	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	9 vPro	Pro 64	Mar 10
4314-7RU	i5-540M	2.53	3.06	4GB	15.6" HD+	2.0M	128G SSD	Intel 6200	WWAN upg	Finger	Blue	9 vPro	Pro 64	Mar 10
4314-9CU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	9 vPro	Pro 64	May 10
4314-9DU	i5-540M	2.53	3.06	2GB	15.6" HD+	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	9 vPro	Pro 64	May 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive <i>All:</i>													
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr													
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
PCIe Mini Card Intel 1000 Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Intel AMT Audio support Security Security chip Fingerprint reader											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades²² available													

See footnotes for important warranty information

US models announced May 4, 2010; previous models on January 7 or March 2, 2010

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(KN1-6) May 2010

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Intel vPro	Pre-load	Whorse (W) Gbl (G) GMP (P)	Avail date
4349-3JU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	250G 5400	Intel 6200 ²⁸	Gobi AT&T ²³		Finger	Blue	vPro	Pro 32		Jan 10
4349-3KU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	320G 7200	Intel 6200	Gobi Verizon ¹⁶		Finger	Blue	vPro	Pro 32		Jan 10
4349-2LU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD		320G 5400	11b/g/n	upg					Pro 32		Jan 10
4349-2NU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	320G 7200	Intel 6200	Gobi AT&T		Finger	Blue	vPro	Pro 32		Feb 10
4349-2PU	i7-620M	2.66	3.33	4GBx1 1333	15.6" HD+	2.0M	500G 7200	Intel 6200	upg		Finger	Blue	vPro	Pro 32		Jan 10
4349-2MU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	500G 7200	11b/g/n	upg		Finger	Blue		Pro 32	W G	Jan 10
4349-3AU	i5-520M	2.40	2.93	2+1GB 1066	15.6" HD	2.0M	320G 5400	Intel 6200	upg		Finger	Blue	vPro	Pro 32	W G	Jan 10
4349-4BU	i5-520M	2.40	2.93	2+1GB 1066	15.6" HD	2.0M	80G SSD	Intel 6200	upg		Finger	Blue	vPro	Pro 32	G	Feb 10
4349-4VU	i5-520M	2.40	2.93	2GBx2 1066	15.6" HD	2.0M	320G 5400	Intel 6200	upg				vPro	Pro 64	G	Mar 10
4349-57U	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD+	2.0M	320G 7200	Intel 6200	Gobi AT&T		Finger	Blue	vPro	Pro 32		Apr 10
4349-4XU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	160G 7200	Intel 6200	upg			Blue	vPro	Pro 32	G	Apr 10
4349-5CU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	160G 7200	Intel 6200	upg			Blue	vPro	Pro 64	G	May 10
4349-5EU	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD+	2.0M	160G 7200	Intel 6200	upg			Blue	vPro	Pro 64	G	May 10
Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; i5-520M/ i5-540M: 3MB cache; i7-620M: 4MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64					
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB (7200 rpm), 250GB (5400 rpm), 320GB (5400 or 7200 rpm), or 500GB (7200 rpm) / All: SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive															
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio															
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus															
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)															
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm 6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg) Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic Lithium Ion 6-cell, supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr															
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies					
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots Some: 11b/g/n wireless⁴, ThinkPad 11b/g/n, PCIe Half Mini Card Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider Some: AT&T® or Verizon®, contract required with service provider										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Carrier Modem Bluetooth™ Ethernet	Some: 56K V.92⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹² 3-years/1-yr - battery depot repair service / service upgrades²² available																

See footnotes for important warranty information

® US models announced May 4, 2010; previous models on January 7, March 2, or April 6, 2010

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ThinkPad® T510 4349 (Discrete) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max		Memory (MHz)	Wide- screen display	Camera	Disk		PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue- tooth	Bat- tery cells	Intel vPro	Whorse (W)		
		Base (GHz)	turbo (GHz)				SATA GB ³	rpm							Pre- load	Gbl (G) GMP (P)	Avail date
4349-2QU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD	500G	7200	11b/g/n	WWAN upg			6		Pro 32		Feb 10
4349-3HU	i5-540M	2.53	3.06	2+1GB	1066	15.6" HD	128G	SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	6	vPro	Pro 32		Feb 10
4349-2RU	i7-620M	2.66	3.33	2GBx1	1066	15.6" HD+	2.0M	320G	7200	Intel 6200	WWAN upg	Finger	Blue	9	vPro	Pro 32	W G Feb 10
4349-3BU	i5-520M	2.40	2.93	2+1GB	1066	15.6" HD	2.0M	320G	7200	Intel 6200	WWAN upg	Finger	Blue	6	vPro	Pro 32	W G Feb 10
4349-4WU	i5-540M	2.53	3.06	2GBx2	1066	15.6" HD+	2.0M	320G	7200	Intel 6200	WWAN upg	Finger	Blue	9	vPro	Pro 64	G Mar 10
4349-5AU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD	2.0M	160G	7200	Intel 6200	WWAN upg		Blue	9	vPro	Pro 32	Apr 10
4349-5BU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD+	2.0M	320G	7200	Intel 6200	WWAN upg	Finger	Blue	6	vPro	Pro 32	Apr 10
4349-5DU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD	2.0M	160G	7200	Intel 6200	WWAN upg		Blue	6	vPro	Pro 64	G May 10

• These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core or Intel Core i7 processor i7-620M with dual-core DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-540M: 3MB cache; i7-620M: 4MB cache</i>		Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64	
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>			
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i> <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i>			
Camera	<i>Some: camera on top of screen, 2.0-megapixel, fixed focus</i>			
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)</i>			
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i> <i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i> <i>Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic</i> Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell: up to 4.7 hr; 9-cell: up to 7.8 hr; 9-cell plus Slice battery: up to 15.6 hr</i>			
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		Supports ThinkVantage® technologies	
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some: 11b/g/n wireless⁴, ThinkPad 11b/g/n, PCIe Half Mini Card</i> <i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable</i> 56K V.92 ⁶ modem <i>Some: Bluetooth 2.1 wireless, LED indicator</i> <i>Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1</i> <i>vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1</i>		90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades²² available			

See footnotes for important warranty information

US model announced May 4, 2010; previous models on January 7, March 2, or April 6, 2010

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ThinkPad® T510 4384 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Intel vPro	Preload	Whorse (W) Gbl (G) GMP (P)	Avail date
4384-2MU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	500G 7200	11b/g/n	WWAN upg	Finger	Blue		Pro 32	W G P	Jan 10
4384-3AU	i5-520M	2.40	2.93	3GB	15.6" HD	2.0M	320G 5400	Intel 6200 ²⁸	WWAN upg	Finger	Blue	vPro	Pro 32	W G P	Jan 10
4384-4BU	i5-520M	2.40	2.93	3GB	15.6" HD	2.0M	80G SSD	Intel 6200	WWAN upg	Finger	Blue	vPro	Pro 32	G P	Feb 10
4384-4XU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	vPro	Pro 32	G P	Apr 10
4384-5CU	i5-520M	2.40	2.93	2GB	15.6" HD+	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	vPro	Pro 64	G P	May 10
4384-5EU	i5-540M	2.53	3.06	2GB	15.6" HD+	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	vPro	Pro 64	G P	May 10

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> 80GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 320GB (5400 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm														
Weight ²	<i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)														
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic														
Battery - type	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom														
Battery - life ¹⁰	<i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr														
Chipset	Mobile Intel QM57 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Smart Card read	None														
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)														
Ports	Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years /1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

See footnotes for important warranty information

US models announced May 4, 2010; previous models on January 7 or April 6, 2010

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(KN1-9) May 2010

ThinkPad® T510 4384 (Discrete) - Onsite (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸	rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Whorse (W) Gbl (G) GMP (P)	Avail date
4384-2RU	i7-620M	2.66	3.33	2GB	15.6" HD+	2.0M	320G	7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	9	vPro	Pro 32	W G P Feb 10
4384-3BU	i5-520M	2.40	2.93	3GB	15.6" HD	2.0M	320G	7200	Intel 6200	WWAN upg	Finger	Blue	6	vPro	Pro 32	W G P Feb 10
4384-5DU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G	7200	Intel 6200	WWAN upg		Blue	6	vPro	Pro 64	G P May 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core or Intel Core i7 processor i7-620M with dual-core DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M: 3MB cache; i7-620M: 4MB cache</i>	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 160GB ⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for important warranty information

US model announced May 4, 2010; previous models on January 7, 2010

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(KN1-10) May 2010

ThinkPad® T510 4349 (Education) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
4349-E2U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	11b/g/n				Blue		Pro 32	Jan 10
4349-E3U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 5400	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger	Blue	vPro	Pro 32	Jan 10
4349-E4U	i5-540M	2.53	3.06	3GB	15.6" HD+	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T	Finger	Blue	vPro	Pro 32	Jan 10

- **These models have a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • E3U/E4U models: Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB ⁸ (5400 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr		
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider		
Carrier Modem Bluetooth™ Ethernet	<i>Some:</i> AT&T ²³ , contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1		
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378		
ThinkPlus™.22 3-year LOR²⁴ 9x5 NBD 45K6021		
ThinkPlus 4-year LOR 9x5 NBD 45K6022		
ThinkPlus 5-year LOR 9x5 NBD 45K6024		
ThinkPlus 4-year P&L P/U Depot 45K6023		
ThinkPlus 5-year P&L P/U Depot 45K6025		
Post-warranty annual maintenance agreements at **lenovo.com/thinkplus/warranty**		

See footnotes for important warranty information
US models announced January 7, 2010

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(KN1-11) January 2010

ThinkPad® T510 4349 (Discrete) - Education (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Blue-tooth	Finger-print reader	Bat-tery Intel vPro	Preload	Avail date
4349-E5U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Blue	Finger	6 vPro	Pro 32	Feb 10
4349-E6U	i5-520M	2.40	2.93	3GB	15.6" HD+	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T	Blue	Finger	9 vPro	Pro 32	Feb 10

- **These models have a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • <i>E6U model:</i> Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection – Instructor Resources (and DVD) – Learning Creative Suite 4 (DVD) – Photoshop Elements 7 (DVD) – Premiere Elements 7 (and DVD) – Acrobat 9 Professional (DVD) – Contribute CS4 (and DVD) – Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
PCIe Mini Card Intel 6200 ²⁸ Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	AT&T®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced January 7, 2010

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ThinkPad®



Lenovo® ThinkPad W510



Lenovo ThinkPad W510



ThinkPad Mini Dock Plus Series 3 - Mobile WorkStation
433820U



ThinkPad 135W AC Adapter
55Y9317



Lenovo ThinkPad W510



Lenovo ThinkPad W510

ThinkPad® W510 4319 (TopSeller) - XP with Win 7 License

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	RAID	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Color calib	Intel vPro	Preload	Avail date
4319-4CU	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD+	2.0M	320G 7200	None	Intel 6300 ²⁸	WWAN upg	None	vPro	XP Pro	Feb 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **Power-packed engineering with Open GL graphics and ISV certifications**

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7 processor i7-720QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; 6MB cache	Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut	
Color calibration	None	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	Supports ThinkVantage® technologies 135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm	
Weight ²	6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)	
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic	
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom	
Battery - life ¹⁰	6-cell: up to 3.0 hr; 9-cell: up to 5.1 hr; 9-cell plus slice battery: up to 10.5 hr	
Chipset	Mobile Intel QM57 Express Chipset	
ExpressCard/34	One slot (ExpressCard/34)	
Smart Card Read	None	
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card	Two PCI Express Mini Card slots	
Intel 6300 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3	
WWAN upg	Wireless WAN upgradable	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US model announced February 2, 2010

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(KN1W-4) February 2010

ThinkPad® W510 4319 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen	Disk SATA GB ³ rpm	RAID	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Color calib	Intel vPro	Preload	Avail date
4319-2NU	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD+		320G 7200	None	Intel 6300 ²⁸	WWAN upg			vPro	Pro 32	Jan 10
4319-2PU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" FHD		320G 7200	None	Intel 6300	WWAN upg			vPro	Pro 64	Jan 10
4319-2QU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" FHD		320G 7200	None	Intel 6300	Gobi 2000			vPro	Pro 64	Jan 10
4319-2RU	i7-820QM	1.73	3.06	2GBx2 1066	15.6" FHD	Multi	320G 7200	None	Intel 6300	WWAN upg		X-Rite	vPro	Pro 64	Jan 10
4319-4BU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" FHD		320G 7200	None	Intel 6300	Gobi 2000	AT&T ²³		vPro	Pro 64	Feb 10
4319-4MU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" HD+		320G 7200	None	Intel 6300	Gobi 2000	AT&T		vPro	Pro 64	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- Power-packed engineering with Open GL graphics and ISV certifications

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM</i> : 6MB cache; <i>i7-820QM</i> : 8MB cache		Preloaded operating system ²⁰ - <i>Some</i> : Genuine Windows® 7 Professional 32 - <i>Some</i> : Genuine Windows 7 Professional 64	
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets		Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB ⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	<i>Some</i> : 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some</i> : 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut <i>Some</i> : 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 242 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut, MultiTouch (touchscreen supports two-finger touch)			
Color calibration Camera	<i>Some</i> : huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 2.0-megapixel, fixed focus			
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)			
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions (WxDxH) ³	<i>HD+</i> : 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD</i> : 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <i>FHD MultiTouch</i> : 14.68" x 9.65" x 1.35-1.57"; 372.8mm x 245.1mm x 34.3-39.8mm <i>6-cell</i> : starting at 5.66 lb (2.57kg); <i>9-cell</i> : starting at 6.01 lb (2.72kg)			
Weight ²	<i>Display cover</i> : Glass-fiber reinforced plastic; <i>Base</i> : Carbon-fiber reinforced plastic			
Case material	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom			
Battery - type	<i>6-cell</i> : up to 3.0 hr; <i>9-cell</i> : up to 5.1 hr; <i>9-cell plus slice battery</i> : up to 10.5 hr			
Battery - life ¹⁰				
Chipset ExpressCard/34 Smart Card Read Multicard Reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		Supports ThinkVantage® technologies	
PCIe Mini Card Intel 6300 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 <i>Some</i> : Wireless WAN upgradable <i>Some</i> : Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider		135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some</i> : AT&T®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available			

See footnotes for important warranty information

US model announced March 2, 2010; previous models on January 7, 2010 or February 2, 2010

US model withdrawn effective February 2010

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(KN1W-1) March 2010

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen	Cam-era	Disk SATA GB ⁸ rpm RAID	SATA optical	PCIe Mini Card 802.11	Blue/Color Fing	Bat-tery Intel vPro	Whorse (W) Pre-GMP (P) Avail (G) date
4389-22U	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD		250G 5400	DVD±RW	Intel 6200 ²⁸		6 vPro	Pro 32 G Jan 10
4389-23U	i7-820QM	1.73	3.06	2GBx2 1066	15.6" HD+		320G 7200	DVD±RW	Intel 6200	Yes	9 vPro	Pro 32 G Jan 10
4389-24U	i7-820QM	1.73	3.06	4GBx1 1333	15.6" HD+	2.0M	500G 7200	1	Intel 6300 ²⁸	Yes	9 vPro	Pro 64 Jan 10
4389-2SU	i7-920XM	2.00	3.20	4GBx1 1333	15.6" HD+	2.0M	320G 7200	1	Intel 6300	Yes	9 vPro	Pro 64 Jan 10
4389-2TU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" HD+	2.0M	320G 7200	DVD±RW	Intel 6200	Yes	9 vPro	Pro 32 Jan 10
4389-2UU	i7-820QM	1.73	3.06	2GBx2 1066	15.6" FHD	Multi 2.0M	500G 7200	DVD±RW	Intel 6300	Yes X-Rite	9 vPro	Pro 32 Jan 10

• **Power-packed engineering with Open GL graphics and ISV certifications**

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7 processor i7-720QM, i7-820QM, or i7-920XM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM: 6MB cache; i7-820QM/ i7-920XM: 8MB cache</i>									Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64		
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets									Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)		
SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm), 320GB⁸ (7200 rpm), or 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 242 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut, MultiTouch (touchscreen supports two-finger touch)											
Color calibration Camera	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest <i>Some:</i> Camera on top of screen, 2.0-megapixel, fixed focus											
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)											
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD MultiTouch:</i> 14.68" x 9.65" x 1.35-1.57"; 372.8mm x 245.1mm x 34.3-39.8mm											
Weight ²	<i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)											
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic											
Battery - type	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery											
Battery - life ¹⁰	<i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr											
Chipset	Mobile Intel QM57 Express Chipset											
ExpressCard/34	One slot (ExpressCard/34)											
Smart Card Read	None											
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)											
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3											
Intel 6200 ²⁸	Wireless WAN upgradable											
Intel 6300 ²⁸	56K V.92 ²⁶ modem											
WWAN upg	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator											
Modem	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											
Bluetooth™	Intel Active Management Technology (iAMT)											
Ethernet	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											
Intel AMT	Power-on password, hard disk password, supervisor password, security keyhole											
Audio support	Trusted Platform Module, TCG 1.2-compliant											
Security	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											
Security chip												
Fingerprint reader												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											

See footnotes for important warranty information
US models announced January 7, 2010

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Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Disk SATA GB ⁸ rpm	RAID	SATA optical	PCIe Mini Card 802.11	Blue/ Fing	Bat-Color tery Intel calib cells vPro	Whorse (W) GMP (P) Avail date
4391-22U	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD	250G 5400	None	DVD±RW	Intel 6200 ²⁸	None	6 vPro Pro 32 G P Jan 10
4391-23U	i7-820QM	1.73	3.06	2GBx2 1066	15.6" HD+	320G 7200	None	DVD±RW	Intel 6200	Yes	9 vPro Pro 32 G P Jan 10

- **These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**
- **Power-packed engineering with Open GL graphics and ISV certifications**

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM: 6MB cache; i7-820QM: 8MB cache</i>		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut		
Color calibration	None		
Camera	None		
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i> <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell: up to 3.0 hr; 9-cell: up to 5.1 hr; 9-cell plus slice battery: up to 10.5 hr</i>		
Chipset ExpressCard/34 Smart Card Read Multicard Reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole		
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
Supports ThinkVantage® technologies			
135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630			
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
 US models announced January 7, 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09
1GB PC3-10600 DDR3 L-H SODIMM	55Y3709	ann 03/02/10
1GB PC3-10600 DDR3 L-H SODIMM (25Pack)	55Y4415	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	55Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III ⁴⁸	43N3412	ann 06/23/09
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Ultrabay Enhanced 12.7mm

DVD Burner Ultrabay Enhanced II SATA	43N3294	ann 01/07/10
Blu-ray Reader / DVD Burner Ultrabay Enh	43N3295	ann 01/07/10

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

T510:

ThinkPad Port Replicator Series 3	433610W	ann 06/23/09
ThinkPad Mini Dock Series 3	433710U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3	433810U	ann 06/23/09

All:

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad Mini Dock Plus Series 3 - Mobile WS	433820U	ann 01/07/10

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

ThinkPad Battery 55+ (6-cell)	57Y4185	ann 03/30/10
ThinkPad Battery 55++ (9-cell)	57Y4186	ann 03/30/10
ThinkPad Battery 27++ (9-cell, slice) ⁴³	57Y4545	ann 01/07/10

⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using Series 3 Port Replicator or Docks).

ThinkPad External Battery Charger	40Y7625	ann 09/20/05
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More information at www.lenovo.com/alldaycomputing

T510:

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

W510:

ThinkPad 135W AC Adapter	55Y9317	ann 01/07/10
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More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

•Palm device charge tip (L7)	41R4315	ann 12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann 12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Backpack	43R2482	ann 05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad W700



Lenovo ThinkPad W700 with
ThinkPad W700 Mini Dock 2.0
57Y4345



ThinkPad 170W AC Adapter
41R4421



ThinkPad Battery 37++ (9-cell)
45J7914



Lenovo ThinkPad W700



Lenovo ThinkPad W700

ThinkPad® W700 2758 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Discrete graphics memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card slot	Color calib	Digitizer	Preload	Avail date
2758-28U	T9400	2.53	1GB	17" WXGA+	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300 ²⁸		Smart	X-Rite	Wacom	Bus64	Sep08
2758-4SU	T9600	2.80	4GB	17" WUXGA	Cam	512MB	2x160G 7200		DVD±RW	Intel 5300	2G Turbo	Smart	X-Rite		Bus64	Sep08
2758-29U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x250G 5400	1	DVD±RW	Intel 5300		Smart	X-Rite	Wacom	Bus64	Sep08
2758-MPU	Q9000	2.00	4GB	17" WUXGA	Cam	512MB	1x80G SSD		DVD±RW	Intel 5300		/54			Bus64	Jun 09
2758-MWU	P8700	2.53	3GB	17" WXGA+	Cam	512MB	1x320G 7200		DVD±RW	Intel 5300		/54			XP Pro	Oct 09
2758-MXU	T9900	3.06	4GB	17" WUXGA	Cam	512MB	2x320G 7200		DVD±RW	Intel 5300		/54			Bus64	Oct 09
• These small and medium business (SMB) models are part of the US TopSeller™ Program																
Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo processor T9400, T9600 or T9900 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Quad processor Q9000 with quad-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 64 ◇ Vista models: Vista Premium logo				
Memory	1GB, 3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available											Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™ PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)				
SATA DVD±RW Ultrabay Enhanced SATA disks	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Some: One disk, 80GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: One disk, 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ Some: Two disks, 160GB (7200 rpm), 250GB (5400 rpm) or 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, supports three disks max, Shock Mounted Hard Drive															
Widescreen display	Some: 17.0" (431.8mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, 45% color gamut Some: 17.0" (431.8mm) WUXGA (1920x1200) color, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut															
Color calibration Camera	Some: huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus															
Discrete graphics	Some: NVIDIA® Quadro® FX2700M, PCI Express® x16, 512MB memory Some: NVIDIA Quadro FX3700M, PCI Express x16, 1GB memory Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)											ISV software certifications Supports ThinkVantage® technologies				
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Some: Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions											ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter				
Dimensions ³ Weight ² Case material	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm 9-cell: starting at 8.4 lb (3.8kg) Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 9-cell 9-cell: up to 2.3 hr															
Battery - type Battery - life ¹⁰																
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus One ExpressCard/34 Some: [54] One ExpressCard/34 or ExpressCard/54 None Some: Smart Card Reader 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None (uses Half-Mini PCIe slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.1 wireless, LED indicator Non-vPro model: Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 vPro model: Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180				
Intel AMT Audio support Security Security chip Fingerprint reader	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available															

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

Ⓜ US models announced October 22, 2009; previous models on August 12, 2008 or June 2, 2009

✗ US models withdrawn effective September 2008, December 2009, or February 2010

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ThinkPlus™.22 3-year LOR²⁴ 9x5 NBD
41C9176
ThinkPlus 4-year LOR 9x5 NBD
41C9177
ThinkPlus 5-year LOR 9x5 NBD
41C9179
ThinkPlus 4-year P&L P/U Depot
41C9178
ThinkPlus 5-year P&L P/U Depot
41C9180
Post-warranty annual maintenance agreements at
lenovo.com/thinkplus/warranty

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Discrete Cam- graphics era memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card slot	Blue/ Color Fing calib	Digit- izer	Workhorse (W) Global (G) Avail Preload date								
2752-36U	T9600	2.80	4GB	17" WUXGA	Cam 1GB	2x250G 5400	1	DVD±RW	❖Intel 5300 ²⁸	None	/54	Yes	X-Rite	Bus64 W Sep 08								
2752-37U	T9600	2.80	4GB	17" WUXGA	Cam 1GB	2x250G 5400	1	DVD±RW	❖Intel 5300	None	/54	Yes	X-Rite	Bus64 W Sep 08								
2752-38U	T9600	2.80	4GB	17" WUXGA	Cam 1GB	2x320G 5400	0	DVD±RW	❖Intel 5300	None	CF	Yes	X-Rite	Wacom Bus64 Sep 08								
2752-3NU	T9600	2.80	4GB	17" WUXGA	Cam 1GB	2x320G 5400	0	DVD±RW	❖Intel 5300	None	CF	Yes	X-Rite	Wacom Bus64 Sep 08								
2752-3YU	T9600	2.80	2GB	17" WXGA+	Cam 1GB	2x200G FDE	0	DVD±RW	❖Intel 5300	None	/54	Yes	X-Rite	Wacom Bus32 W Sep 08								
2752-MSU	Q9000	2.00	3GB	17" WUXGA	Cam 512MB	1x160G 7200		DVD±RW	❖Intel 5300	None	/54	Yes		Bus32 Jun 09								
2752-MTU	Q9000	2.00	4GB	17" WUXGA	Cam 512MB	1x80G SSD		DVD±RW	❖Intel 5300	None	/54	Yes		Bus64 Jun 09								
• First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks • Select models include digitizer on palm rest and dual-link DVI-D and DisplayPort ports																						
Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Duo processor T9600 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Quad processor Q9000 with quad-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Some: Genuine Windows® Vista® Business 32 - Some: Genuine Windows Vista Business 64 ♦ Vista Premium logo										
Memory	2GB, 3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)										
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high <i>Some:</i> One disk, 80GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> One disk, 160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>Some:</i> Two disks, 250GB (5400 rpm), 320GB (5400 rpm), or 200GB Full Disk Encryption [FDE] (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports three disks max, Shock Mounted Hard Drive											ISV software certifications Supports ThinkVantage® technologies ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter 170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™ ²² 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty										
Widescreen display	<i>Some:</i> 17.0" (431.8mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, 45% color gamut <i>Some:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut																					
Color calibration Camera	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus																					
Discrete graphics	<i>Some:</i> NVIDIA® Quadro® FX2700M , PCI Express® x16, 512MB memory <i>Some:</i> NVIDIA Quadro FX3700M , PCI Express x16, 1GB memory <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)																					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys																					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																					
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label																					
Numeric keypad	10-key numeric keypad on right side of keyboard																					
Digitizer	<i>Some:</i> Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side																					
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions																					
Dimensions ³	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm																					
Weight ²	<i>9-cell:</i> starting at 8.4 lb (3.8kg)																					
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic																					
Battery - type	Lithium Ion 9-cell																					
Battery - life ¹⁰	<i>9-cell:</i> up to 2.3 hr																					
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus																					
ExpressCard/34	One ExpressCard/34																					
ExpressCard/54	<i>Some:</i> [54] One ExpressCard/34 or ExpressCard/54																					
Compact Flash	<i>Some:</i> [CF] One Type I slot																					
Smart Card Read	None																					
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)																					
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																					
Mini PCI Express	Three Mini PCI Express slots																					
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3																					
2G Turbo	None																					
UWB	None (uses Half-Mini PCIe slot)																					
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket																					
Bluetooth™	Bluetooth 2.1 wireless, LED indicator																					
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1																					
Intel AMT	Intel Active Management Technology (iAMT)																					
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack																					
Security	Power-on password, hard disk password, supervisor password, security keyhole																					
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant																					
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip																					
Limited warranty ¹²	3-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																					
2GB PC3-8500 DDR3 L-H SODIMM					55Y3707	ThinkPad Battery 37++ (9-cell)				45J7914												
4GB PC3-8500 DDR3 L-H SODIMM					55Y3708	ThinkPad W700 Mini Dock 2.0				57Y4345												
Other accessories on O-W700 sheet	Other accessories at lenovo.com/accessories																					

See footnotes for important warranty information

♦ Intel Centrino 2 with vPro™ technology

☞ US models announced June 2, 2009; previous models on August 12, 2008

☞ US models withdrawn effective August 2009 or February 2010

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Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card Blue/ slot	Digit- izer	Workhorse (W) Global (G) Avail date
2752-6SU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300 ²⁸		/54	Yes	Bus64 W G Sep 08
2752-6TU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	1	DVD±RW	Intel 5300		CF	Yes	Wacom Bus64 W G Sep 08
2752-3AU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	BD burner	Intel 5300		/54	Yes	Wacom Ult64 Sep 08
2752-6UU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300		CF	Yes	Wacom Bus64 W G Sep 08
2752-3DU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	BD burner	Intel 5300		CF	Yes	Wacom Bus64 Sep 08
2752-5ZU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	DVD±RW	Intel 5300		CF	Yes	Wacom Bus64 Sep 08
2752-62U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200		DVD±RW	Intel 5300	2G Turbo	/54	Yes	Wacom Bus64 W Sep 08
2752-43U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	BD burner	Intel 5300		/54	Yes	Wacom Ult64 W Sep 08
2752-6ZU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200		DVD±RW	Intel 5300		CF	Yes	XP Pro G Sep 08
2752-72U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300		CF	Yes	Wacom XP Pro G Sep 08

- First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks
- Select models include digitizer on palm rest and dual-link DVI-D and DisplayPort ports

Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache			Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 64 - Some: Genuine Windows Vista Ultimate 64 ✧ Vista models: Vista Premium logo Preloaded applications ¹⁴ (all OSes, only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software• ThinkPad Utilities (Power Manager and Presentation Director)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)• huey™PRO Monitor Color Correction by Pantone®/X-Rite® ISV software certifications Supports ThinkVantage® technologies ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 watt AC adapter 170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available			
SATA DVD±RW SATA BD burner Ultrabay Enhanced SATA disk	Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) Some: Blu-ray™ burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9150) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 160GB ⁸ (7200 rpm) or 200GB Full Disk Encryption [FDE] (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Widescreen display Color calibration Camera	17.0" (431.8mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus			
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express x16, 1GB memory Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)			
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Some: Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm 9-cell: starting at 8.4 lb (3.8kg) Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic			
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell 9-cell: up to 2.3 hr			
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus			
ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Read Multicard Reader Ports	One ExpressCard/34 Some: [54] One ExpressCard/34 or ExpressCard/54 Some: [CF] One Type I slot None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None (uses Half-Mini PCIe slot)			
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip			
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available			
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM 4GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-W700 sheet	55Y3706 55Y3707 55Y3708	ThinkPad Battery 37++ (9-cell) ThinkPad 170W AC Adapter ThinkPad W700 Mini Dock 2.0 Other accessories at lenovo.com/accessories	45J7914 41R4421 57Y4345	

See footnotes for important warranty information

US models announced August 12, 2008

⚡ US models withdrawn effective August 2009 or February 2010

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(NIC1-3) November 2009

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ³ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card slot	Blue/ Fing	Digit- izer	Workhorse (W) Global (G), Ed Avail	date
2753-48U	T9400	2.53	1GB	17" WUXGA		512MB	2x160G 7200	0	Combo	Intel 5300 ²⁸	None	/54	Yes		Bus32	Sep 08
2753-6SU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300	None	/54	Yes		Bus64	Sep 08
2753-6TU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	1	DVD±RW	Intel 5300	None	CF	Yes	Wacom	Bus64	Sep 08
2753-6UU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300	None	CF	Yes	Wacom	Bus64	Sep 08
2753-6ZU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300	None	CF	Yes	Wacom	XP Pro	Sep 08
2753-72U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300	None	CF	Yes	Wacom	XP Pro	Sep 08
2753-MNUT9600		2.80	4GB	17" WUXGA	Cam	512MB	2x160G 7200		DVD±RW	Intel 5300	None	/54	Yes		Bus32	Mar 09

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks

Processor	Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system ²⁰					
Memory	1GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										<ul style="list-style-type: none"> - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Business 64 					
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										♦ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® 					
Widescreen display Color calibration Camera	17.0" (431.8mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus										ISV software certifications					
Discrete graphics	<i>Some:</i> NVIDIA® Quadro® FX2700M, PCI Express® x16, 512MB memory <i>Some:</i> NVIDIA Quadro FX3700M, PCI Express x16, 1GB memory <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)										Supports ThinkVantage® technologies					
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard <i>Some:</i> Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none"> • Security key lock • Security cable lock slot • External monitor ports <ul style="list-style-type: none"> – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter 					
Dimensions ³ Weight ² Case material	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm 9-cell: starting at 8.4 lb (3.8kg) Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell 9-cell: up to 2.3 hr										ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 12X5630 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus															
ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Read Multicard Reader Ports	One ExpressCard/34 <i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54 <i>Some:</i> [CF] One Type I slot 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 None None (uses Half-Mini PCIe slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1															
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available															

See footnotes for important warranty information

♦ Intel Centrino® 2 with vPro™ technology

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US models announced August 12, 2008 or March 24, 2009

(NIC1-5) November 2009

⚡ US models withdrawn effective February 2010

ThinkPad®



Lenovo® ThinkPad W700ds



Lenovo ThinkPad W700ds



Lenovo ThinkPad W700ds



ThinkPad 17W Business Topload Case
43R9117



Lenovo ThinkPad W700ds

ThinkPad® W700ds 2758 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Primary display	Secondary display	Camera	Disk(s) SATA GB ^a	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card Blue/ slot	Digit- izer	Workhorse (W) Global (G) Avail Preload date
2758-MMU Q9000	2.00	4GB	17" WUXGA	10.6" WXGA	Cam	2x320GB	1	DVD±RW	Intel 5300 ²⁸	None	/54	Yes	Wacom	Bus64 No Mar 09
2758-MYU Q9000	2.00	4GB	17" WUXGA	10.6" WXGA	Cam	2x320GB	1	DVD±RW	Intel 5300	None	/54	Yes	Wacom	Bus64 No Oct 09

- **ds = dual screen**
- **17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks**
- **Select models include digitizer on palm rest**

Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Quad processor Q9000 with quad-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache			Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 64 ♦ Vista Premium logo Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite®		
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;					
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 320GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports third disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Displays	Primary: 17.0" (431.8mm) WUXGA (1920x1200) color, widescreen, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut; Secondary: 10.6" (268.7mm) WXGA (768x1280) color, portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size					
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus					
Discrete graphics	NVIDIA® Quadro® FX3700M, PCI Express® x16, 1GB memory; Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label					
Numeric keypad	10-key numeric keypad on right side of keyboard					
Digitizer	Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side					
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions					
Dimensions ³	9-cell 17W" (WxDxH): 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm			ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter		
Weight ²	9-cell: starting at 10.9 lb (4.96kg)					
Case color	Black					
Case material	Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic					
Battery - type	Lithium Ion 9-cell					
Battery - life ¹⁰	9-cell: up to 2.1 hr					
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus					
ExpressCard/34	One slot (ExpressCard/34)					
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)					
Compact Flash	None					
Smart Card read	None					
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)					
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin conn; 1394a-2000 standard)					
Mini PCI Express	Three Mini PCI Express slots			170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3					
2G Turbo	None					
UWB	None (uses Half-Mini PCIe slot)					
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket					
Bluetooth™	Bluetooth 2.1 wireless, LED indicator					
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1					
Intel AMT	Intel Active Management Technology (iAMT)					
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack			ThinkPlus™.22 3-year LOR 9x5 NBD 41C9176		
Security	Power-on password, hard disk password, supervisor password, security keyhole			ThinkPlus 4-year LOR 9x5 NBD 41C9177		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant			ThinkPlus 5-year LOR 9x5 NBD 41C9179		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip			ThinkPlus 4-year P&L P/U Depot 41C9178		
Limited warranty ¹²	3-year - EasyServ™.19 depot repair service / service upgrades ²² available			ThinkPlus 5-year P&L P/U Depot 41C9180		
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 37++ (9-cell)	45J7914	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad 170W AC Adapter	41R4421			
4GB PC3-8500 DDR3 L-H SODIMM	55Y3708	ThinkPad W700 Mini Dock 2.0	57Y4345			
Other accessories on O-W700 sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information

Intel Centrino® 2 with vPro™ technology

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US model announced October 22, 2009; previous models on March 24, 2009

(NIC15-3) October 2009

US model withdrawn effective December 2009

Type-model	Proc- essor	Mem- ory	Primary display	Secondary display	Camera	Disk(s) SATA GB ^a	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	CardBlue/ slot	Digit- izer	Workhorse (W) Global (G) Avail Preload date
2752-EPU Q9100	2.26	4GB	17" WUXGA	10.6" WXGA	Cam	2x160GB	None	DVD±RW	Intel 5300 ²⁸	None	/54	Yes	Bus64 Jan 09
2752-E7U QX9300	2.53	4GB	17" WUXGA	10.6" WXGA	Cam	2x160GB	None	DVD±RW	Intel 5300	None	/54	Yes	Wacom Bus64 WG Jan 09

- **ds = dual screen**
- **17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks**
- **Select models include digitizer on palm rest**

Positioning Processor	<i>Mobile workstation; three spindles</i> Intel® Core™ 2 Quad processor Q9100 with quad-core , Intel HD boost, 1066MHz system bus, and 12MB L2 cache or Intel Core 2 Extreme processor QX9300 with quad-core , Intel HD boost, 1066MHz system bus, and 12MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 64 ♦ Vista Premium logo Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)• huey™PRO Monitor Color Correction by Pantone®/X-Rite®
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports third disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Displays	<i>Primary:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , widescreen, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size		
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus		
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express® x16, 1GB memory; <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)		ISV software certifications
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard <i>Some:</i> Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions		Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case color Case material	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm <i>9-cell:</i> starting at 10.9 lb (4.96kg) Black <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 watt AC adapter
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.1 hr		
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus		170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ExpressCard/34 ExpressCard/54 Compact Flash Smart Card read Multicard reader Ports	One slot (ExpressCard/34) <i>Some:</i> One slot (ExpressCard/34, ExpressCard/54) None None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin conn; 1394a-2000 standard)		
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) None None (uses Half-Mini PCIe slot)		
Modem Bluetooth™ Ethernet	56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip		ThinkPlus™.22 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180
Limited warranty ¹²	3-year - EasyServ™.19 depot repair service / service upgrades ²² available		

See footnotes for important warranty information
 US models announced January 6, 2009

♦ Intel Centrino 2 with vPro™ technology

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 (NIC15-1) January 2009

⚡ US model withdrawn effective November 2009

Type-model	Proc- essor	Mem- ory	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁸	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	CardBlue/ Digit- izer	Workhorse (W) Global (G) Avail Preload GMP (P) date
2753-E7U QX9300	2.53	4GB	17" WUXGA	10.6" WXGA	Cam	2x160GB	None	DVD±RW	Intel 5300 ²⁸	None	/54 Yes Wacom	Bus64 WGP Jan 09
<ul style="list-style-type: none">• ds = dual screen• 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks• Select models include digitizer on palm rest• This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty												
Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Extreme processor QX9300 with quad-core , Intel HD boost, 1066MHz system bus, and 12MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® Vista® Business 64 ♦ Vista Premium logo Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)• huey™PRO Monitor Color Correction by Pantone®/X-Rite®
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports third disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Displays	<i>Primary:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , widescreen, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size											
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus											
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express® x16, 1GB memory; <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label											
Numeric keypad	10-key numeric keypad on right side of keyboard											
Digitizer	Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side											
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm											
Weight ²	<i>9-cell:</i> starting at 10.9 lb (4.96kg)											
Case color	Black											
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											
Battery - type	Lithium Ion 9-cell											
Battery - life ¹⁰	<i>9-cell:</i> up to 2.1 hr											
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus											
ExpressCard/34	One slot (ExpressCard/34)											
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)											
Compact Flash	None											
Smart Card read	None											
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)											
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin conn; 1394a-2000 standard)											
Mini PCI Express	Three Mini PCI Express slots											
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3											
2G Turbo	None											
UWB	None (uses Half-Mini PCIe slot)											
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.1 wireless, LED indicator											
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706					ThinkPad Battery 37++ (9-cell)			45J7914			
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707					ThinkPad 170W AC Adapter			41R4421			
4GB PC3-8500 DDR3 L-H SODIMM	55Y3708					ThinkPad W700 Mini Dock 2.0			57Y4345			
Other accessories on O-W700 sheet						Other accessories at lenovo.com/accessories						
ThinkPlus™. ²² 4-year LOR 9x5 NBD 12X5630												
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty												

See footnotes for important warranty information
 US model announced January 6, 2009

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Memory

1GB PC3-8500 DDR3 SODIMM	43R1987	ann 08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann 03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann 08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann 03/17/09
4GB PC3-8500 DDR3 SODIMM	51J0493	ann 03/03/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III ⁴⁸	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim SATA 1.5Gb/s	43N3212	ann 08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3214	ann 08/05/08

⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Ultrabay Enhanced 12.7mm

DVD-ROM Ultrabay Enhanced SATA 1.5Gb/s	43R9147	ann 08/05/08
DVD Burner Ultrabay Enh SATA 1.5Gb/s	43R9149	ann 08/05/08
Blu-ray™ Burner Ultrabay Enh SATA 1.5Gb/s	43R9150	ann 08/05/08
Blu-ray Reader / DVD Burner Ultrabay Enh	43N3295	ann 01/07/10

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad W700 Mini Dock 2.0	57Y4345	ann 09/29/09

More information at www.lenovo.com/support/W700minidock

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

⁵⁷ Only compatible with the models having 54mm Express card slot.

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Batteries

ThinkPad Battery 37++ (9-cell)	45J7914	ann 08/12/08
ThinkPad 170W AC Adapter	41R4421	ann 08/12/08
ThinkPad 230W AC Adapter	55Y9333	ann 02/23/10

More information at www.lenovo.com/alldaycomputing

Carrying Cases

Up to 17.0" widescreen models:

ThinkPad 17W Business Topload Case	43R9117	ann 08/12/08
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Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad W701



Lenovo ThinkPad W701 with
ThinkPad W700 Mini Dock 2.0
57Y4345



ThinkPad 170W AC Adapter
41R4421



ThinkPad Battery 37++ (9-cell)
45J7914



Lenovo ThinkPad W701



Lenovo ThinkPad W701

ThinkPad® W701 2500 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Memory (MHz)	Widescreen display	Discrete graphics	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	PCIe Mini Card 802.11	Card slot	Color calib/ Adapter Intel vPro Preload	Power (watt)	Avail date
2500-3AU	i7-720QM	2GBx1 1066	17" WXGA+	FX2800M	1x320G 7200	No	DVD±RW	Intel 6300 ²⁸	Exp 54	170W vPro	Pro 64	Mar 10
2500-3BU	i7-820QM	2GBx2 1066	17" WUXGA	FX2800M	1x320G 7200	No	DVD±RW	Intel 6300	Smart	230W vPro	Pro 64	Mar 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Mobile workstation; three spindles Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM: 1.60GHz, 6MB cache; i7-820QM: 1.73GHz, 8MB cache</i>										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • Fingerprint Software • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Corel® WinDVD® (DVD±RW)	
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets										ISV software certifications Supports ThinkVantage® technologies	
SATA DVD±RW Ultrabay Enhanced SATA disk(s)	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high One disk, 320GB⁹ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
Widescreen display	<i>Some:</i> 17.0" (433.0mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, 45% color gamut <i>Some:</i> 17.0" (433.0mm) WUXGA (1920x1200) color , anti-glare, RGB LED backlight , 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
Color calibration Camera	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 2.0-megapixel, fixed focus										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
Discrete graphics	NVIDIA® Quadro® FX2800M , PCI Express® x16, 1GB memory supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @60Hz; 2048x1536 (VGA) @85Hz										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard <i>Some:</i> Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
Dimensions ³ Weight ² Case material	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 1.60-1.63"; 410mm x 310mm x 40.6-41.4mm <i>9-cell:</i> starting at 8.97 lb (4.07kg) <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.0 hr										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Read Multicard Reader Ports	Mobile Intel QM57 Express Chipset One ExpressCard/34 <i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54 None <i>Some:</i> Smart Card Reader 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
PCIe Mini Card Intel 6300 ²⁸ Modem Bluetooth™ Ethernet Intel AMT Audio support	One PCI Express Half Mini Card slot 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
Security Security chip Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpctr	

See footnotes for important warranty information
 US models announced February 23, 2010

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Type-model	Processor	Memory (MHz)	Widescreen display	Discrete Camera graphics	Disk(s) SATA GB ⁸ rpm	RAID	Card slot	Color calib/ Digitizer	Power Adapter (watt)	Intel vPro	Workhorse (W) Global (G) Avail date
2541-25U	i7-920XM	2GBx2 1066	17" WUXGA		FX3800M 320G 7200 x 2	0	CF	Yes	230W	Pro 64	Mar 10
2541-28U	i7-920XM	4GBx2 1333	17" WUXGA	2.0M	FX3800M 128G SSD + 320G 5400		CF	Yes	230W	Pro 64	Mar 10
2541-29U	i7-920XM	2GBx2 1066	17" WUXGA		FX2800M 320G 5400		CF	Yes	230W	Pro 64	Mar 10
2541-4HU	i7-820QM	2GBx2 1066	17" WUXGA	2.0M	FX3800M 500G 7200 x 2		Smart	Yes	230W	vPro	Pro 64 W Mar 10
2541-4KU	i7-820QM	4GBx1 1333	17" WUXGA	2.0M	FX2800M 320G 5400 x2	0	Smart	Yes	230W	vPro	Pro 64 W Mar 10
2541-58U	i7-720QM	2+1GB 1066	17" WXGA+		FX2800M 320G 7200		Exp 54		170W	vPro	Pro 64 W G Mar 10
2541-59U	i7-820QM	2GBx2 1066	17" WUXGA	2.0M	FX2800M 500G 7200 x 2		Exp 54		230W	vPro	Pro 64 W G Mar 10
2541-5BU	i7-820QM	2GBx2 1066	17" WUXGA	2.0M	FX3800M 128G SSD + 500G 7200		Exp 54		230W	vPro	Pro 64 W G Mar 10
• These models have a depot repair service 3-year limited warranty											
Positioning Processor	Mobile workstation; three spindles Intel® Core™ i7 processor i7-720QM, i7-820QM, or i7-920XM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM</i> : 1.60GHz, 6MB cache; <i>i7-820QM/ i7-920XM</i> : 1.73GHz/2.00GHz, 8MB cache								Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64		
Memory	3GB, 4GB, or 8GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets								Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)		
SATA DVD±RW Ultrabay Enhanced SATA disk(s)	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high <i>Some</i> : One disk, 320GB ⁹ (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS) <i>Some</i> : Two same disks, 320GB (5400 or 7200 rpm) or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS <i>Some</i> : Two disks, 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high and 320GB (5400 rpm) or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS <i>All</i> : removable, upgradable, supports three disks max, Shock Mounted Hard Drive								ISV software certifications		
Widescreen display	<i>Some</i> : 17.0" (433.0mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, 45% color gamut <i>Some</i> : 17.0" (433.0mm) WUXGA (1920x1200) color , anti-glare, RGB LED backlight , 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut <i>Some</i> : huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest								Supports ThinkVantage® technologies		
Color calibration Camera	<i>Some</i> : huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest <i>Some</i> : camera on top of screen, 2.0-megapixel, fixed focus								ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series		
Discrete graphics	<i>Some</i> : NVIDIA® Quadro® FX2800M , PCI Express® x16, 1GB memory <i>Some</i> : NVIDIA Quadro FX3800M , PCI Express x16, 1GB memory supports dual independent display; <i>Maximum external resolution</i> : 2560x1600 (DisplayPort or dual-link DVI-D) @60Hz; 2048x1536 (VGA) @85Hz								Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adptr		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys								170-watt or 230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label										
Numeric keypad	10-key numeric keypad on right side of keyboard										
Digitizer	<i>Some</i> : Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side								ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>9-cell 17W" (WxDxH)</i> : 16.1" x 12.2" x 1.60-1.63"; 410mm x 310mm x 40.6-41.4mm										
Weight ²	<i>9-cell</i> : starting at 8.97 lb (4.07kg)										
Case material	<i>Top</i> : magnesium alloy; <i>Bottom</i> : Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										
Battery - type	Lithium Ion 9-cell										
Battery - life ¹⁰	<i>9-cell</i> : up to 2.0 hr										
Chipset	Mobile Intel QM57 Express Chipset										
ExpressCard/34	One ExpressCard/34										
ExpressCard/54	<i>Some</i> : [54] One ExpressCard/34 or ExpressCard/54										
Compact Flash	<i>Some</i> : [CF] One Type I slot										
Smart Card Read	<i>Some</i> : Smart Card Reader										
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)										
Ports	One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
PCIe Mini Card	One PCI Express Half Mini Card slot										
Intel 6300 ²⁸	11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3										
Modem	56K V.92 ⁶ modem										
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										
Ethernet	<i>Non-vPro model</i> : Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model</i> : Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available										

See footnotes for important warranty information
US models announced February 23, 2010

Type-model	Processor	Memory (MHz)	Widescreen display	Camera	Discrete graphics	Disk(s) SATA GB ⁸ rpm	RAID	Color calib/ Digitizer	Power Adapter (watt)	Intel vPro	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
2542-58U	i7-720QM	2+1GB 1066	17" WXGA+		FX2800M	320G 7200	None	None	170W	vPro	Pro 64	W G P	Mar 10
2542-59U	i7-820QM	2GBx2 1066	17" WUXGA	2.0M	FX2800M	500G 7200 x 2	None	None	230W	vPro	Pro 64	W G P	Mar 10
2542-5BU	i7-820QM	2GBx2 1066	17" WUXGA	2.0M	FX3800M	128G SSD + 500G 7200	None	None	230W	vPro	Pro 64	W G P	Mar 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mobile workstation; three spindles Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM: 1.60GHz, 6MB cache; i7-820QM: 1.73GHz, 8MB cache</i>	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software• ThinkVantage Toolbox• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Research AutoCollage Touch• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW) ISV software certifications Supports ThinkVantage® technologies ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 or 230 watt AC adptr 170-watt or 230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Memory	3GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Enhanced SATA disk(s)	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high <i>Some: One disk, 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS)</i> <i>Some: Two same disks, 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS</i> <i>Some: Two disks, 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high and 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS</i> <i>All: removable, upgradable, supports three disks max, Shock Mounted Hard Drive</i>	
Widescreen display	<i>Some: 17.0" (433.0mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, 45% color gamut</i> <i>Some: 17.0" (433.0mm) WUXGA (1920x1200) color, anti-glare, RGB LED backlight, 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut</i>	
Color calibration	None	
Camera	<i>Some: camera on top of screen, 2.0-megapixel, fixed focus</i>	
Discrete graphics	<i>Some: NVIDIA® Quadro® FX2800M, PCI Express® x16, 1GB memory</i> <i>Some: NVIDIA Quadro FX3800M, PCI Express x16, 1GB memory</i> supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @60Hz; 2048x1536 (VGA) @85Hz	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label	
Numeric keypad	10-key numeric keypad on right side of keyboard	
Digitizer	None	
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.60-1.63"; 410mm x 310mm x 40.6-41.4mm</i>	
Weight ²	<i>9-cell: starting at 8.97 lb (4.07kg)</i>	
Case material	<i>Top: magnesium alloy;</i> <i>Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic</i>	
Battery - type	Lithium Ion 9-cell	
Battery - life ¹⁰	<i>9-cell: up to 2.0 hr</i>	
Chipset	Mobile Intel QM57 Express Chipset	
ExpressCard/34	One ExpressCard/34	
ExpressCard/54	[54] One ExpressCard/34 or ExpressCard/54	
Compact Flash	None	
Smart Card Read	None	
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
Ports	One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card	One PCI Express Half Mini Card slot	
Intel 6300 ²⁸	11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-year - battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for important warranty information
US models announced February 23, 2010

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Lenovo® ThinkPad W701ds



Lenovo ThinkPad W701ds



Lenovo ThinkPad W701ds



ThinkPad 17W Business Topload Case
43R9117



ThinkPad 230W AC Adapter
55Y9333

ThinkPad® W701ds 2500 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Memory (MHz)	Primary display	Secondary display	Camera	Discrete graphics	Disk(s) SATA GB ⁸ rpm	Color RAID ⁹ Digitizer	Power Adapter (watt)	Intel vPro	Preload	Avail date
2500-2XU	i7-820QM	4GBx2 1333	17" WUXGA	10.6" WXGA		FX3800M	128G SSD + 320G 5400	None	Yes	230W vPro	Pro 64	Mar 10
2500-3CU	i7-820QM	2GBx2 1066	17" WUXGA	10.6" WXGA	2.0M	FX3800M	500G 7200	None	Yes	230W vPro	Pro 64	Mar 10

- **ds = dual screen**
- **17" widescreen ThinkPad workstation with two RAID-capable disks**
- **Select models include integrated color calibration and digitizer on palm rest**

Positioning Processor	<i>Mobile workstation; three spindles</i> Intel® Core™ i7 processor i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; 1.73GHz, 8MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64
Memory	4GB or 8GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software• ThinkVantage Toolbox• Adobe® Reader®• Skype™ for Windows• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high <i>Some:</i> One disk, 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS) <i>Some:</i> Two disks, 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high and 320GB (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS <i>All:</i> removable, upgradable, supports three disks max, Shock Mounted Hard Drive	ISV software certifications
Displays	<i>Primary:</i> 17.0" (433.0mm) WUXGA (1920x1200) color , anti-glare, RGB LED backlight , 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	Supports ThinkVantage® technologies
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 or 230 watt AC adptr
Discrete graphics	NVIDIA® Quadro® FX3800M , PCI Express® x16, 1GB memory, supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @60Hz; 2048x1536 (VGA) @85Hz	230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions	ThinkPlus™. 22 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Dimensions ³ Weight ² Case material	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm <i>9-cell:</i> starting at 11.43 lb (5.23kg) <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.0 hr	
Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card reader Multicard reader Ports	Mobile Intel QM57 Express Chipset One ExpressCard/34 None [CF] One Type I slot None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6300 ²⁸ Modem Bluetooth™ Ethernet Intel AMT Audio support	One PCI Express Half Mini Card slot 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	ThinkPlus™. 22 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
 US models announced February 23, 2010

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ThinkPad® W701ds 2541 (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁸ rpm	RAID	Card slot	Power Adapter (watt)	Intel vPro	Workhorse (W) Global (G) Avail date
2541-4JU	i7-920XM	2.00	3.20	4GBx1 1333	17" WUXGA	10.6" WXGA	2.0M 320G 7200 x 2	0	Exp 54	230W		Pro 64 W Mar 10
2541-5AU	i7-820QM	1.73	3.06	2GBx2 1066	17" WUXGA	10.6" WXGA	2.0M 500G 7200		Smart	230W	vPro	Pro 64 W G Mar 10

- **ds = dual screen**
- **17" widescreen ThinkPad workstation with two RAID-capable disks**
- **Select models include integrated color calibration and digitizer on palm rest**

Positioning Processor	<i>Mobile workstation; three spindles</i> Intel® Core™ i7 processor i7-820QM or i7-920XM with quad-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; 8MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64	
Memory	4GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) 	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high <i>Some:</i> One disk, 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS) <i>Some:</i> Two same disks, 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS <i>All:</i> removable, upgradable, supports three disks max, Shock Mounted Hard Drive											
Displays	<i>Primary:</i> 17.0" (433.0mm) WUXGA (1920x1200) color , anti-glare, RGB LED backlight , 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size											
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 2.0-megapixel, fixed focus										ISV software certifications Supports ThinkVantage® technologies	
Discrete graphics	NVIDIA® Quadro® FX2800M , PCI Express® x16, 1GB memory, supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @60Hz; 2048x1536 (VGA) @85Hz										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: <ul style="list-style-type: none"> • Security key lock • Security cable lock slot • External monitor ports <ul style="list-style-type: none"> – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adptr 	
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case material	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm <i>9-cell:</i> starting at 11.43 lb (5.23kg) <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.0 hr											
Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One ExpressCard/34 <i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54 None <i>Some:</i> Smart Card Reader 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
PCIe Mini Card Intel 6300 ²⁸ Modem Bluetooth™ Ethernet	One PCI Express Half Mini Card slot 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										ThinkPlus™, ²² 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available											

See footnotes for important warranty information
 US models announced February 23, 2010

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ThinkPad® W701ds 2542 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz) (GHz)	Memory (MHz)	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁸ rpm	RAID	Card slot	Power Adapter (watt)	Intel vPro	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
2542-5AU	i7-820QM	1.73	3.06	2GBx2	1066	17" WUXGA	10.6" WXGA	2.0M	500G 7200 x 1	No	Smart	230W	vPro	Pro 64 W G P Mar 10
<ul style="list-style-type: none">• ds = dual screen• 17" widescreen ThinkPad workstation with two RAID-capable disks• Select models include integrated color calibration and digitizer on palm rest														
Positioning Processor	Mobile workstation; three spindles Intel® Core™ i7 processor i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; 8MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• Fingerprint Software• ThinkVantage Toolbox• Adobe® Reader®• Skype™ for Windows• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high One disk, 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports three disks max, Shock Mounted Hard Drive Active Protection System™ (APS)										ISV software certifications Supports ThinkVantage® technologies			
Displays	<i>Primary:</i> 17.0" (433.0mm) WUXGA (1920x1200) color , anti-glare, RGB LED backlight , 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series			
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 2.0-megapixel, fixed focus										Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 or 230 watt AC adpctr			
Discrete graphics	NVIDIA® Quadro® FX2800M , PCI Express® x16, 1GB memory, supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @60Hz; 2048x1536 (VGA) @85Hz										230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions										ThinkPlus™. 22 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180			
Dimensions ³ Weight ² Case material	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm <i>9-cell:</i> starting at 11.43 lb (5.23kg) <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.0 hr													
Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One ExpressCard/34 None None Smart Card Reader 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card Intel 6300 ²⁸ Modem Bluetooth™ Ethernet Intel AMT Audio support	One PCI Express Half Mini Card slot 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant													
Security Security chip Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available													

See footnotes for important warranty information
 US model announced February 23, 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706 ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385 ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707 ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386 ann 06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III ⁴⁸	43N3412 ann 06/23/09
DVD-ROM Ultrabay Slim SATA 1.5Gb/s	43N3212 ann 08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3214 ann 08/05/08

⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Ultrabay Enhanced 12.7mm

DVD-ROM Ultrabay Enhanced SATA 1.5Gb/s	43R9147 ann 08/05/08
DVD Burner Ultrabay Enh SATA 1.5Gb/s	43R9149 ann 08/05/08
Blu-ray™ Burner Ultrabay Enh SATA 1.5Gb/s	43R9150 ann 08/05/08
Blu-ray Reader / DVD Burner Ultrabay Enh	43N3295 ann 01/07/10

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692 ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737 ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152 ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410 ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403 ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411 ann 01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420 ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423 ann 01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406 ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417 ann 06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904 ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905 ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258 ann 10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916 ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917 ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918 ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689 ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690 ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018 ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019 ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400 ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264 ann 01/05/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292 ann 05/12/09
USB Port Replicator with Digital Video	45K1610 ann 07/28/09
ThinkPad W700 Mini Dock 2.0	57Y4345 ann 09/29/09

More information at www.lenovo.com/support/W700minidock

Keyboard

TrackPoint Cap Collection	73P2698 ann 12/16/03
USB Numeric Keypad	33L3225 ann 05/01/00
Preferred Pro USB Keyboard	73P5220 ann 06/21/05
Enhanced Performance USB Keyboard	73P2620 ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700 ann 09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

ThinkPad USB Keyboard with TrackPoint	55Y9003 ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730 ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155 ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308 ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309 ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069 ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074 ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635 ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405 ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410 ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008 ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582 ann 12/29/03
Kensington Twin Head Cable Lock	45K1620 ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040 ann 02/21/06
ExpressCard Gemplus Smart Card Reader ⁵⁷	41N3043 ann 06/27/06

⁵⁷ Only compatible with the models having 54mm Express card slot.

Multimedia

ThinkPad In-Ear Headphones	57Y4488 ann 01/07/10
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Batteries

ThinkPad Battery 37++ (9-cell)	45J7914 ann 08/12/08
ThinkPad 170W AC Adapter	41R4421 ann 08/12/08
ThinkPad 230W AC Adapter	55Y9333 ann 02/23/10

More information at www.lenovo.com/alldaycomputing

Carrying Cases

Up to 17.0" widescreen models:

ThinkPad 17W Business Topload Case	43R9117 ann 08/12/08
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Monitors

ThinkVision® L1711p 17" Monitor	5047HB2 ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1 ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6 ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6 ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6 ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6 ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2 ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296 ann 05/12/09
ThinkVision USB Soundbar	40Y7616 ann 08/23/05
ThinkVision Soundbar	45K1263 ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582 ann 12/29/03
Kensington Twin Head Cable Lock	45K1620 ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258 ann 09/22/09
Radial Arm	19K4464 ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X100e



Lenovo ThinkPad X100e



Lenovo ThinkPad X100e



Lenovo ThinkPad X100e with 3-cell battery



Lenovo ThinkPad X100e



Lenovo ThinkPad X100e family

ThinkPad® X100e (3508) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Blue- tooth	Preload	Avail date
3508-28U	MV-40	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg		black		Home P 32	Jan 10
3508-29U	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black		Pro 32	Jan 10
3508-2AU	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	AT&T ²³	black		Pro 32	Jan 10
3508-9BU	L335	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg		black		Home P 32	Mar 10
3508-9CU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black		Pro 32	Mar 10
3508-9DU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		red		Pro 32	Mar 10
3508-9EU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000		black	Blue	Pro 32	Mar 10
3508-9TU	L335	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	Gobi 2000	AT&T	black		Home P 32	Apr 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD® Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache or AMD Athlon Neo X2 Processor for Ultrathin Notebooks L335 with dual-core , virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows 7 Home Premium 32 - Some: Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Research AutoCollage Touch
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 160GB ⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable	
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive	
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536@60Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None	
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black or red; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	Supports ThinkVantage® technologies
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 5 hr	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset	AMD M780G Chipset, SB710 south bridge	
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)	
PCIe Mini Card 11b/g/n WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None <i>Some:</i> Bluetooth 2.1 wireless Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

® US models announced March 30 or April 6, 2010; previous models on January 5, 2010

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(MNK1-2) April 2010

ThinkPad® X100e (3508) - TopSeller (XP Home)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Camera	Integrated graphics	Disk SATA GB ⁵ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Carrier cells	Whorse (W) Gbl (G) Educ	Avail date
3508-24U	MV-40	1.60	1GB	11.6" HD	LED	0.3M	HD 2200	160G 5400	None	11b/g/n	Gobi 2000	None 6	XP Home	No Jan 10

- This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD® Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache			Preloaded operating system ²⁰ - Genuine Windows® XP Home Edition		
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available			Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Presentation Director• Lenovo System Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)		
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 160GB ⁸ (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable					
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive					
Integrated graphics	ATI™ Radeon™ HD 2200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536@60Hz					
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None					
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic					
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 5 hr					
Chipset	AMD M780G Chipset, SB710 south bridge			Supports ThinkVantage® technologies		
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)			65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
PCIe Mini Card 11b/g/n Gobi™ 2000	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider			ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 41C9166		
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	None None Bluetooth 2.1 wireless Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack			ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None			ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
1GB PC2-5300 DDR2 SODIMM	40Y7734	ThinkPad Battery 17 (3-cell)	57Y4558			
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad Battery 17+ (6-cell)	57Y4559			
Other accessories on O-X100-E sheet		Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US model announced January 12, 2010

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Type-model	Proc- essor	GHz	Memory	Wide- screen display	Camera	Integrated graphics	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Bat- tery cells	Blue- tooth	Workhorse (W) Global (G) Avail date
2876-2JU	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg	None	black	6	Pro 32	Jan 10
2876-2FU	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6	Blue Pro 32	Jan 10
2876-35U	MV-40	1.60	3GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	black	6	Blue Pro 32	Jan 10
2876-33U	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	WiMAX	WWAN upg	None	black	6	Blue Pro 32	Mar 10
2876-34U	MV-40	1.60	4GB	11.6" HD	0.3M	HD 3200	250GB 5400	WiMAX	WWAN upg	None	black	6	Blue Pro 32	Mar 10
2876-6RU	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6 high	Blue Pro 32	Mar 10
2876-72U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6	Blue Pro 32	Mar 10
2876-73U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	black	6	Blue Pro 32	Mar 10
2876-74U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	red	6	Blue Pro 32	Mar 10
2876-76U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6 high	Blue Pro 32	Mar 10
2876-9XU	L335	1.60	2GB	11.6" HD	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg	None	black	6	Blue Pro 32	G May 10
2876-9YU	L335	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	black	6	Blue Pro 32	May 10
Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD® Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache or AMD Athlon Neo X2 Processor for Ultrathin Notebooks L335 with dual-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache or AMD Turion™ Neo X2 Processor for Ultrathin Notebooks L625 with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Research AutoCollage Touch			
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Supports ThinkVantage® technologies			
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 160GB⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive										ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536@60Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None													
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black or red; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 6-cell high capacity <i>6-cell:</i> up to 5.1 hr; <i>6-cell high:</i> up to 5.2 hr													
Chipset	AMD M780G Chipset, SB710 south bridge													
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)													
PCIe Mini Card 11b/g/n WiMAX	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX													
WWAN upg Gobi™ 2000	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	None None <i>Some:</i> Bluetooth 2.1 wireless Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

US models announced May 4, 2010; previous models on January 5, March 2, or March 30, 2010

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(MNK1-1) May 2010

ThinkPad® X100e (3508) - Education (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Camera	Integrated graphics	Disk SATA GB ⁵ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Bat- tery cells	Preload	Whorse (W) Gbl (G) Educ	Avail date
3508-2GU	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250G 5400	None	11b/g/n	WWAN upg	None	6	Pro 32	Edu	Jan 10
<ul style="list-style-type: none">Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																
Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD® Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache											Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32				
Memory	2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications ¹⁴ (only some listed) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premiere Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe Reader® • Skype™ for Windows • Microsoft Research AutoCollage Touch				
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable											Supports ThinkVantage® technologies				
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive															
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536 @60Hz											65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None															
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172				
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 5 hr															
Chipset	AMD M780G Chipset, SB710 south bridge											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)															
PCIe Mini Card 11b/g/n WWAN upg Gobi™ 2000 Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 Wireless WAN upgradable None None None None Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole None None															
Security Security chip Fingerprint reader	None None None															
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available															
1GB PC2-5300 DDR2 SODIMM				40Y7734		ThinkPad Battery 17 (3-cell)				57Y4558		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
2GB PC2-5300 DDR2 SODIMM				40Y7735		ThinkPad Battery 17+ (6-cell)				57Y4559						
Other accessories on O-X100-E sheet										Other accessories at lenovo.com/accessories						

See footnotes for important warranty information
US model announced January 5, 2010

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Memory

1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0502	ann	03/17/09
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06
2GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0548	ann	03/17/09

Storage and removable storage

500GB Disk SATA 1.5Gb/s (5400 rpm)	43N3420	ann	06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad AT&T® Gobi 2000 Broadband Opt	78Y1398	ann	01/07/10
ThinkPad Gobi 2000 Broadband Option	78Y1399	ann	01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Preferred Pro USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann	11/25/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Batteries

ThinkPad Battery 17 (3-cell)	57Y4558	ann	01/05/10
ThinkPad Battery 17+ (6-cell)	57Y4559	ann	01/05/10
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter</i> 40Y7659 or the adapter provided with the system.			

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696		
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com**Carrying Cases**

ThinkPad X100e Sleeve	57Y4286	ann	01/05/10
ThinkPad X100e Sling	57Y4287	ann	01/05/10

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

For more information on accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X200



Lenovo ThinkPad X200 with
X200/X200s (WXGA), X201 12W Privacy Filter
55Y9264



Lenovo ThinkPad X200



Lenovo ThinkPad X200 with
ThinkPad X200 UltraBase
43R8781



Lenovo ThinkPad X200



ThinkPad 65W AC Adapter
40Y7696

ThinkPad® X200 (7454) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Intel AMT	Preload	Avail date
7454-32U	P8700	2.53	2GB	12.1" WXGA	LED		160GB 5400			✦ Intel 5100 ²⁸	WWAN upg	None		XP Pro	Oct 09
7454-34U	P8700	2.53	2GB	12.1" WXGA	LED	Cam	160GB 7200	DVD±RW	UltraBase	✦ Intel 5100	WWAN upg	None		XP Pro	Oct 09
7454-3SU	P8800	2.66	4GB	12.1" WXGA	LED	Cam	160GB 7200	DVD±RW	UltraBase	✦ Intel 5100	WWAN upg	None	Yes	XP Pro	Oct 09
7454-GKU	P8600	2.40	2GB	12.1" WXGA	LED		250GB 5400			✦ Intel 5100	WWAN upg	None	Yes	XP Pro	Dec 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning	An ultraportable for the executive on the move; one spindle										Preloaded operating system²⁰				
Processor	Intel® Core™ 2 Duo processor P8600, P8700, or P8800 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache										- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed)				
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, Active Protection System™, removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std X200 UltraBase										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update 				
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio										Supports ThinkVantage® technologies				
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus										ThinkPad X200 UltraBase™				
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45										<ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 				
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz										<ul style="list-style-type: none"> • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 				
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys										Other features:				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										<ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 				
Touch pad	None										65-watt (GMA graphics) AC Adapter				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Climate Savers® certified				
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg)										EPEAT™ Gold rating				
Weight ²	Black										ENERGY STAR® 5.0-compliant				
Case color	Magnesium alloy										ROHS-compliant				
Case material	Lithium Ion 6-cell										International Warranty Service ¹⁷				
Battery - type	<i>4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Battery - life ¹⁰															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice	<i>Some:</i> X200 UltraBase media slice (see right side)														
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)														
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)														
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)														
2G Turbo	None														
UWB	None														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	<i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT)														
Intel AMT	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Audio support	Power-on password, hard disk password, supervisor password, security keyhole														
Security	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Security chip	Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Fingerprint reader															
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available														

See footnotes for important warranty information

US model announced December 15, 2009;
previous models on October 22, 2009

✦ Intel Centrino® 2 processor technology

✦ Intel Centrino 2 with vPro™ technology

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(MOC2-1) December 2009

ThinkPad® X200 (7454) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo	Whorse (W) Pre- Gbl (G) Educ	Avail date
7454-33U	P8700	2.53	2GB	12.1" WXGA	LED		160GB 5400			Intel 5100 ²⁸	WWAN upg	None	6 Pro 32 No	Oct 09
7454-3VU	P8700	2.53	2GB	12.1" WXGA	LED	Cam	160GB 7200	DVD±RW	UltraBase	Intel 5100	Verizon ¹⁶	None	6 Pro 32 No	Nov 09
7454-3WU	P8700	2.53	2GB	12.1" WXGA	LED	Cam	160GB 7200	DVD±RW	UltraBase	WiMAX	WWAN upg	None	6 Pro 32 No	Nov 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox			
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, Active Protection System™, removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std <i>X200 UltraBase</i>										Supports ThinkVantage® technologies			
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus													
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536 @ 75Hz</i>										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB FDE 7200 rpm 43N3411			
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter 1.6 lb; 730g			
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Weight ² Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice Multicard reader ExpressCard/54 Ports	<i>Some:</i> X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express Intel 5100 ²⁸ WiMAX	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)													
WWAN upg Verizon ¹⁶	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adpdr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with <u>Verizon</u>													
2G Turbo UWB	None													
Modem Bluetooth™ Ethernet Intel AMT	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None													
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced November 3, 2009; previous model on October 22, 2009

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(MOC2-2) March 2010

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue- tooth	Finger print reader	Bat- tery cells	Whorse (W) Pre- load	Gbl (G) TAA	Avail date
7458-5EU	P8600	2.40	2GB	12.1" WXGA		160GB 5400	Optional	Optional	Intel 5100 ²⁸			Blue		6	B32	W G	Aug 08
7458-5FU	P8600	2.40	2GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5100			Blue	Finger	6	B32	W G	Aug 08
7458-69U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	Intel 5300 ²⁸	WWAN upg	2G Turbo	Blue	Finger	6	B32	W G	Aug 08
7458-M2U	P8600	2.40	1GB	12.1" WXGA		160GB 5400	Optional	Optional	Intel 5100			Blue		4	B32	W G	Aug 08
7458-M3U	P8600	2.40	1GB	12.1" WXGA		160GB 5400	Optional	Optional	Intel 5100			Blue	Finger	6	B32	W G	Aug 08
7458-7DU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200	Optional	Optional	Intel 5300	WWAN upg	2G Turbo	Blue	Finger	6	B32		Aug 08
7458-X4U	P8600	2.40	2GB	12.1" WXGA		160GB 5400	Optional	Optional	Intel 5100	WWAN upg				6	B32	TAA	Aug 08
7458-5HU	P8600	2.40	4GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5300	Verizon ¹⁶		Blue	Finger	9	B32	W	Sep 08
7458-7CU	P8600	2.40	4GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5300	AT&T ²³		Blue	Finger	9	B32	W	Sep 08
7458-87U	P8600	2.40	2GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5100			Blue	Finger	6	XP	G	Sep 08
7458-88U	P8600	2.40	4GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5300	AT&T		Blue	Finger	9	XP	W	Sep 08
7458-89U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	Intel 5300	Verizon		Blue	Finger	9	XP	W	Sep 08

• These models have a depot repair service 3-year limited warranty

Positioning US Govt (TAA) ⁵ Processor	An ultraportable for the executive on the move; one spindle X4U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◆ Vista models: Vista Premium logo					
Memory	1GB, 2GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software (fingerprint models)					
SATA Combo Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>											Supports ThinkVantage® technologies					
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411					
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @ 75Hz (VGA)											Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g					
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions											65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg)																
Weight ² Case color Case material Battery - type Battery - life ¹⁰	Black Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr																
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)																
Media slice Multicard reader ExpressCard/54 Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)																
Mini PCI Express	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T																
Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg Verizon ¹⁶	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁹ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT)																
2G Turbo UWB	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack																
Modem Bluetooth™ Ethernet Intel AMT	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip																
Audio support	Security chip																
Security Security chip Fingerprint reader	Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available																

See footnotes for important warranty information

◆ Intel Centrino® 2 with vPro™ technology

Ⓜ US model announced September 2, 2008; previous models on August 5, 2008

Ⓜ US model withdrawn effective August 2008

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(MOC1-2) March 2010

	Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue- tooth	Finger print reader	Bat- tery cells	Whorse (W) Pre- Gbl (G) Avail load date	
	7458-8SU	P8600	2.40	2GB	12.1" WXGA	Cam 128GB SSD			❖Intel 5100 ²⁸	WWAN upg				6	XP	Dec08
	7458-8RU	P8600	2.40	2GB	12.1" WXGA	128GB SSD			❖Intel 5300 ²⁸	WWAN upg		Blue	Finger	6	B32	Dec08
	7458-8QU	P8600	2.40	2GB	12.1" WXGA	Cam 128GB SSD			❖WiMAX	WWAN upg		Blue	Finger	6	B32	Dec08
	7458-8PU	P8600	2.40	2GB	12.1" WXGA	128GB SSD			❖WiMAX	WWAN upg		Blue	Finger	6	B32	Dec08
⚡	7458-7BU	P8600	2.40	2GB	12.1" WXGA	Cam 160GB 7200	Combo UltraBase		❖WiMAX	WWAN upg	2G Turbo	Blue	Finger	9	U32 W	Dec08

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core , Intel HD boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system²⁰ - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 - <i>Some:</i> Genuine Windows Vista Ultimate 32 ✧ <i>Vista models:</i> Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ Supports ThinkVantage® technologies
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available		
SATA Combo Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard <i>X200 UltraBase</i>		
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus		
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @ 75Hz (VGA)		ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg)		
Weight ² Case color Case material Battery - type Battery - life ¹⁰	Black Magnesium alloy Lithium Ion 6-cell or 9-cell <i>4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)		
Media slice Multicard reader ExpressCard/54 Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)		
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WiMAX WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adapter, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
 US models announced December 2 or December 9, 2008

✦ Intel Centrino® 2 with vPro™ technology

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 (MOC1-6) December 2008

✦ US model withdrawn effective February 2010

ThinkPad® X200 (7459) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- ory	Wide- screen display	Cam- era	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G) Avail Preload GMP (P) date
7459-M2U	P8600	2.40	1GB	12.1" WXGA	160GB 5400			❖ Intel 5100 ²⁸				4	Bus32 WGP Aug 08
7459-M3U	P8600	2.40	1GB	12.1" WXGA	160GB 5400			❖ Intel 5100			Finger	6	Bus32 WGP Aug 08
7459-5EU	P8600	2.40	2GB	12.1" WXGA	160GB 5400			❖ Intel 5100				6	Bus32 WGP Aug 08
7459-5FU	P8600	2.40	2GB	12.1" WXGA	160GB 7200			❖ Intel 5100			Finger	6	Bus32 WGP Aug 08
7459-69U	P8600	2.40	2GB	12.1" WXGA Cam	160GB 5400			❖ Intel 5300 ²⁸	WWAN upg	2G Turbo	Finger	6	Bus32 WGP Aug 08
7459-M4U	P8600	2.40	2GB	12.1" WXGA Cam	160GB 7200	Combo	UltraBase	❖ WiMAX	WWAN upg		Finger	9	Ult 32 W Oct 08

• Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows® Vista® Business 32 - Some: Genuine Windows Vista Ultimate 32 ◇ Vista Premium logo
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software (fingerprint models)
SATA Combo Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional ThinkPad X200 UltraBase (43R8781) 160GB ⁸ (5400 or 7200rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase	Supports ThinkVantage® technologies
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio	ThinkPad X200 UltraBase™
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus	• Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45	Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz (VGA)	65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	None	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.98 lb (1.35kg); 6-cell: from 3.26 lb (1.48kg); 9-cell: from 3.61 lb (1.64kg)	
Weight ²	Color: black; Material: magnesium alloy	
Case	Lithium Ion 4-cell, 6-cell, or 9-cell	
Battery - type	4-cell: up to 3.3 hr; 6-cell: up to 6.5 hr; 9-cell: up to 9.8 hr	
Battery - life ¹⁰		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)	
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)	
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54	
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
Intel 5300 ²⁸	Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3	
WiMAX	Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)	
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)	
2G Turbo	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator	
UWB	None	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for important warranty information
US models announced August 5 or October 14, 2008
⚡ US model withdrawn effective February 2010

❖ Intel Centrino® 2 with vPro™ technology

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(MOC1-3) October 2008

ThinkPad® X200 (7458) - Education (EasyServ)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G) Avail date
7458-E2U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	Finger	6	Bus32 W Aug 08
7458-FQU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	❖ Intel 5100	WWAN upg	None	Finger	6	Bus32 W Mar 09

- **This model has a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ✧ Vista Premium logo Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available		
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional <i>ThinkPad X200 UltraBase</i> (43R8781) 160GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>		
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus		
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase <i>Maximum external resolution: 2048x1536 @ 75Hz</i>		
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy		
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)		
Media slice Multicard Reader ExpressCard slot Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One ExpressCard/34 or ExpressCard/54 Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)		
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology
 7458 US model announced March 24, 2009; previous model on August 5, 2008

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 (MOC1-4) April 2009

ThinkPad® X200 (7459) - Education (Onsite)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G) Avail date
7459-E3U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	None	6	Bus32 W Aug08

• **This model has a limited onsite service²⁴ 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel Core 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ✧ Vista Premium logo Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Lenovo System Toolbox Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional <i>ThinkPad X200 UltraBase</i> (43R8781) 160GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>	
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus	
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase <i>Maximum external resolution: 2048x1536@75Hz</i>	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy	
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)	
Media slice Multicard Reader ExpressCard slot Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One ExpressCard/34 or ExpressCard/54 Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant None	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for important warranty information
US models announced August 5, 2008

❖ Intel Centrino® 2 with vPro™ technology

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ThinkPad®



Lenovo® ThinkPad X200s



Lenovo ThinkPad X200s



Lenovo ThinkPad X200s



ThinkPad 12W Case Sleeve
51J0476



Lenovo ThinkPad X200s



ThinkPad Battery 47++ (9-cell)
43R9255

ThinkPad® X200s (7466) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁶ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ tery Fing cells	Workhorse (W) Pre- Global (G) Avail load date
7466-43U	SL9600	2.13	2GB	12.1" WXGA	160GB 7200	DVD±RW	UltraBase	Intel 5100 ²⁸	WWAN upg	None	Yes	6 XP Pro No Oct 09
<ul style="list-style-type: none"> Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display cover This small and medium business (SMB) model is part of the US TopSeller™ Program This model has a 3-years limited warranty 												
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32	
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase										Supports ThinkVantage® technologies	
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus										ThinkPad X200 UltraBase™	
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536 @ 75Hz										<ul style="list-style-type: none"> Provides desktop expansion and cable management for X200 Series Easily connects to the bottom of the X200 Series for traveling Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> 250GB FDE 7200 rpm 43N3410 320GB Disk 7200 rpm 43N3411 	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g	
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.43 lb (1.1kg); 6-cell: from 2.71 lb (1.23kg); 9-cell: from 3.05 lb (1.38kg)										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Weight ² Case color Case material	black Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy											
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell 4-cell: up to 4.4 hr; 6-cell: up to 8.8 hr; 9-cell: up to 13.2 hr											
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											
Media slice Multicard Reader ExpressCard/54 Ports	X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)											
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											

See footnotes for important warranty information
US model announced October 22, 2009

Intel Centrino® 2 with vPro™ technology

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ThinkPad® X200s (7466) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Battery Fing cells	Workhorse (W) Pre-Global (G)Avail date
7466-44U	SL9600	2.13	4GB	12.1" WXGA+	320GB 7200	DVD±RW	UltraBase	❖ Intel 5100 ²⁸	None	None	Yes	9 Pro 64 No Oct 09
<ul style="list-style-type: none">• Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display cover• This small and medium business (SMB) model is part of the US TopSeller™ Program• This model has a 3-years limited warranty												
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64	
Memory	4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions)	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 320GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase											
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None											
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536 @ 75Hz										Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.43 lb (1.1kg); 6-cell: from 2.71 lb (1.23kg); 9-cell: from 3.05 lb (1.38kg)											
Weight ² Case color Case material	black Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy											
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell 4-cell: up to 4.4 hr; 6-cell: up to 8.8 hr; 9-cell: up to 13.2 hr											
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											
Media slice Multicard Reader ExpressCard/54 Ports	X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available											
1GB PC3-8500 DDR3 L-H SODIMM			55Y3706	ThinkPad Battery 47 (4-cell)				43R9253				
2GB PC3-8500 DDR3 L-H SODIMM			55Y3707	ThinkPad Battery 47+ (6-cell)				43R9254				
ThinkPad X200 UltraBase			43R8781	ThinkPad Battery 47++ (9-cell)				43R9255				
Other accessories on O-X200 sheet			Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
US model announced October 22, 2009

❖ Intel Centrino® 2 with vPro™ technology

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Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Workhorse (W) Global (G)	Avail date
7469-5GU	SL9400	1.86	2GB	12.1" WXGA+	160GB 5400			❖ Intel 5100 ²⁸	None	None	Yes	6 Bus 32	G W Sep 08
7469-5HU	SL9400	1.86	2GB	12.1" WXGA+	160GB 7200			❖ Intel 5300 ²⁸	None	None	Yes	4 Bus 32	G W Sep 08
7469-5JU	SL9400	1.86	2GB	12.1" WXGA+	80GB SSD		Combo UltraBase	❖ Intel 5100	None	None	Yes	6 XP Pro	W Dec 08
7469-74U	SL9400	1.86	2GB	12.1" WXGA+	80GB SSD			❖ Intel 5300	None	None	Yes	4 XP Pro	W Dec 08
❖ 7469-7YU	SL9300	1.60	2GB	12.1" WXGA+	128GB SSD			❖ WiMAX	None	None	Yes	6 Bus 32	Dec 08
❖ 7469-7ZU	SL9300	1.60	2GB	12.1" WXGA+	128GB SSD			❖ Intel 5100	None	None	4	Bus 32	Dec 08
❖ 7469-82U	SL9300	1.60	2GB	12.1" WXGA+	128GB SSD			❖ Intel 5300	None	None	Yes	6 XP Pro	Dec 08
❖ 7469-8TU	SL9400	1.86	3GB	12.1" WXGA+	160GB 5400			❖ Intel 5100	None	None	Yes	6 Bus 32	G W Mar 09

- Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display cover

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache		Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ♦ Vista models: Vista Premium logo
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available		
SATA Combo Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) Some: 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard X200 UltraBase		Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software (fingerprint models)
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None		
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536 @ 75Hz		Supports ThinkVantage® technologies
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions		ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.43 lb (1.1kg); 6-cell: from 2.71 lb (1.23kg); 9-cell: from 3.05 lb (1.38kg)		
Weight ² Case color Case material	Black Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy		Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell or 6-cell 4-cell: up to 4.4 hr; 6-cell: up to 8.8 hr; 9-cell: up to 13.2 hr		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)		65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Media slice Multicard reader ExpressCard/54 Ports	Some: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)		
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WiMAX	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Some: 11a/b/g/n and WiMAX wireless, Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)		
WWAN upg 2G Turbo UWB	None None None		
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology

US model announced March 10, 2009; previous models on September 23 or December 9, 2008

❖ US models withdrawn effective September 2009

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(PEC1-2) March 2009

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Preload	Workhorse (W) Global (G) Avail date
7469-8UU	Cel 723	1.20	2GB	12.1" WXGA	160GB 5400	Optional	Optional	Intel 5100 ²⁸	WWAN upg	None	Blue	6	Bus 32	G W Apr 09
7469-8ZU	Cel 723	1.20	2GB	12.1" WXGA	160GB 5400	Optional	Optional	11n ²⁸	WWAN upg	None	Yes	6	Bus 32	G W May 09

• *These models have a depot repair service 3-year limited warranty*

Positioning Processor	<i>An ultraportable for the executive on the move; one spindle</i> Intel® Celeron® Processor 723 with single-core, 800MHz system bus, and 1MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ↳ Vista Premium logo Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo System Toolbox• Adobe® Reader® Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ <ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 Series• Easily connects to the bottom of the X200 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">– DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292– DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214– Serial ATA Hard Drive Bay Adapter III 43N3412Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB Disk 7200 rpm 43N3411 Other features: <ul style="list-style-type: none">• Power button (front)• Stereo speakers (2 watt)• Security key lock, security keyhole, and optional security screw• Analog DB-15 monitor port• DisplayPort (supports single-link DVI-D via cable 45J7915)• Four USB 2.0 ports• Gigabit ethernet port• Microphone in and headphone out• Second battery charger• Requires 65 or 90 watt AC adapter• 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA Combo Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>	
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45	
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536 @ 75Hz</i>	
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	None	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)	
Weight ²	Black	
Case color	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Case material	Lithium Ion 6-cell	
Battery - type	<i>4-cell:</i> up to 4.4 hr; <i>6-cell:</i> up to 8.8 hr; <i>9-cell:</i> up to 13.2 hr	
Battery - life ¹⁰		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)	
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side)	
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
11n ²⁸	<i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II	
WWAN upg	Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152)	
2G Turbo	None	
UWB	None	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

US model announced May 12, 2009; previous model on April 14, 2009

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Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam- era	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ery Fing cells	Workhorse (W) Global (G) Avail date
7470-5GU	SL9400	1.86	2GB	12.1" WXGA+		160GB 5400	Optional	Optional	❖ Intel 5100 ²⁸			None Yes 6	Bus 32 W G P Sep 08
7470-5HU	SL9400	1.86	2GB	12.1" WXGA+		160GB 7200	Optional	Optional	❖ Intel 5300 ²⁸			None Yes 4	Bus 32 W G P Sep 08
7470-6FU	SL9400	1.86	2GB	12.1" WXGA+		160GB 5400	Optional	Optional	❖ Intel 5100			None Yes 6	Bus 32 W Sep 08
7470-6GU	SL9400	1.86	2GB	12.1" WXGA+		80GB 5400	Optional	Optional	❖ Intel 5300			None Yes 4	Bus 32 W Sep 08
7470-6HU	SL9400	1.86	2GB	12.1" WXGA+		80GB SSD	Optional	Optional	❖ Intel 5300			None Yes 4	XP Pro W Dec 08
7470-8TU	SL9400	1.86	3GB	12.1" WXGA+		160GB 5400	Optional	Optional	❖ Intel 5100			None Yes 6	Bus 32 W G P Mar 09
7470-8UU	Cel 723	1.20	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	Intel 5100	WWAN upg	None Blue 6	Bus 32 W G P Apr 09	
7470-8ZU	Cel 723	1.20	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	11n ²⁸	WWAN upg	None Blue 6	Bus 32 W G P May 09	

• Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Celeron® Processor 723 with single-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ❖ Vista models: Vista Premium logo		
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (all OSES; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • Adobe® Reader®		
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) <i>Some:</i> 80GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 80GB (5400) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard <i>X200 UltraBase</i>										Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> 12.1" (308mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> Camera on top of screen, 1.3-megapixel, fixed focus										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Camera	<i>Some:</i> Camera on top of screen, 1.3-megapixel, fixed focus										65-watt (GMA graphics) AC Adapter Climate Savers® certified (except Celeron models) EPEAT™ Gold rating (LED models) ENERGY STAR® 5.0-compliant (except Celeron models) ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45												
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @75Hz												
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	None												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)												
Weight ²	<i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)												
Case color	Black												
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Ion 4-cell or 6-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>6-cell:</i> up to 8.8 hr; <i>9-cell:</i> up to 13.2 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)												
Media slice	<i>Option:</i> ThinkPad X200 UltraBase media slice (see right side)												
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
Mini PCI Express	Three Mini PCI Express slots												
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3												
11n ²⁸	<i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II												
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)												
2G Turbo	None												
UWB	None												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	<i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

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US model announced May 12, 2009; previous models on September 23 or December 9, 2008, or March 10 or April 14, 2009

(PEC1-3) May 2009

ThinkPad® X200s (7469) - Education

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Workhorse (W) Global (G) Avail date
7469-E2U	Cel 723	1.20	2GB	12.1" WXGA	160GB 5400	Optional	Optional	Intel 5100 ²⁸	WWAN upg	None	None	6 Bus 32 W Apr 09

- This model has a depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Celeron® Processor 723 with single-core, 800MHz system bus, and 1MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ✦ Vista Premium logo Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA Combo Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB ⁸ (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>	
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus	Supports ThinkVantage® technologies
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @ 75Hz	ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions	Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)	
Weight ²		
Case color	Black	
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>4-cell:</i> up to 4.4 hr; <i>6-cell:</i> up to 8.8 hr; <i>9-cell:</i> up to 13.2 hr	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)	
Media slice Multicard reader ExpressCard/54 Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152) None None 56K V.92 ⁶ modem None Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant None	
Security Security chip Fingerprint reader		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US model announced April 14, 2009

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(PEC1-5) April 2009

Memory

1GB PC3-8500 DDR3 SODIMM	43R1987	ann 08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann 03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann 08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann 03/17/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann 08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann 08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad X200 UltraBase	43R8781	ann 08/05/08

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
X200s (WXGA+), X201s 12W Privacy Filter	43R2470	ann 08/05/08
X200/X200s (WXGA), X201 12W Privacy Filter	55Y9264	ann 04/07/09
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Batteries

ThinkPad Battery 47 (4-cell)	43R9253	ann 08/05/08
ThinkPad Battery 47+ (6-cell)	43R9254	ann 08/05/08
ThinkPad Battery 47++ (9-cell)	43R9255	ann 08/05/08
ThinkPad External Battery Charger	40Y7625	ann 09/20/05

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 12" widescreen models:

ThinkPad 12W Case Sleeve	51J0476	ann 08/18/09
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Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann 05/13/08
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Up to 15.4" widescreen models:

Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann 05/05/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X200 Tablet



Lenovo ThinkPad X200 Tablet



Lenovo ThinkPad X200 Tablet



Lenovo ThinkPad X200 Tablet



Lenovo ThinkPad X200 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115



Lenovo ThinkPad X200 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115

ThinkPad® X200 Tablet (7449) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Preload	Avail date
7449-43U	SL9600	2.13	2GB	12.1" WXGA	Entry	160G 5400			❖ Intel 5100 ²⁸	WWAN upg	None	4	XP Tab	Oct 09
7449-45U	SL9600	2.13	2GB	12.1" WXGA	Entry	Cam 160G 7200	DVD±RW	UltraBase	❖ Intel 5100	WWAN upg	None	8	XP Tab	Oct 09
7449-47U	SL9600	2.13	4GB	12.1" WXGA	Entry	Cam 160G 7200	DVD±RW	UltraBase	❖ Intel 5100	AT&T ²³	None	8	XP Tab	Oct 09
7449-49U	SL9600	2.13	2GB	12.1" WXGA	MultiTouch	Cam 160G 7200			❖ Intel 5100	WWAN upg	None	8	XP Tab	Oct 09
7449-4AU	SL9600	2.13	4GB	12.1" WXGA	MultiTouch	Cam 160G 7200	DVD±RW	UltraBase	❖ Intel 5100	WWAN upg	None	8	XP Tab	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache			Preloaded operating system ²⁰ - Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)		
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available					
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>			Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ <ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 Series• Easily connects to the bottom of the X200 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">– DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292– DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214– Serial ATA Hard Drive Bay Adapter III 43N3412Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB Disk 7200 rpm 43N3411 Other features: <ul style="list-style-type: none">• Power button (front)• Stereo speakers (2 watt)• Security key lock, security keyhole, and optional security screw• Analog DB-15 monitor port• DisplayPort (supports single-link DVI-D via cable 45J7915)• Four USB 2.0 ports• Gigabit ethernet port• Microphone in and headphone out• Second battery charger• Requires 65 or 90 watt AC adapter• 1.6 lb; 730g		
Widescreen display	Entry: 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen MultiTouch: 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)					
Camera	Some: camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)			65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45					
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)					
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	None					
ThinkLight™	None					
Dimensions ³	without <i>X200 UltraBase</i> ; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without <i>X200 UltraBase</i> ; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg) Color: black; Material: magnesium alloy					
Weight ²						
Case	Lithium Ion 4-cell or 8-cell					
Battery - type						
Battery - life ¹⁰	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr					
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)					
Media slice	Some: X200 UltraBase media slice (see right side)					
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)					
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)					
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)					
Mini PCI Express	Three Mini PCI Express slots					
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)					
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)					
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T					
2G Turbo						
UWB	None					
Modem	56K V.92 ⁶ modem					
Bluetooth™	Bluetooth 2.1 wireless, LED indicator					
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1					
Intel AMT	Intel Active Management Technology (iAMT)					
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant					
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip					
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available					
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 12 (4-cell)	43R9256			
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 12++ (8-cell)	43R9257			
Other accessories on O-X200-T sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information
US models announced October 22, 2009

❖ Intel Centrino® 2 with vPro™ technology

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ThinkPad® X200 Tablet (7449) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Preload	Avail date
7449-44U	SL9600	2.13	2GB	12.1" WXGA	Entry	160G 5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	4	Pro 32	Oct 09
7449-4KU	SL9600	2.13	2GB	12.1" WXGA	MultiTouch	Cam 160G 7200	Optional	Optional	❖ Intel 5100	WWAN upg	None	8	Pro 32	Oct 09
• These small and medium business (SMB) models are part of the US TopSeller™ Program														
Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase										• Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Lenovo Online Data Backup • Adobe® Reader® • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW)			
Widescreen display	Entry: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen MultiTouch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										Supports ThinkVantage® technologies			
Camera	Some: camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536 @ 75Hz (VGA)													
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg) Color: black; Material: magnesium alloy													
Weight ²														
Case														
Battery - type	Lithium Ion 4-cell or 8-cell													
Battery - life ¹⁰	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr													
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice	Optional: X200 UltraBase media slice (see right side)													
Multicard Reader ExpressCard/54 Ports	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)													
2G Turbo	None													
UWB	None													
Modem	56K V.92 ⁶ modem													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC3-8500 DDR3 L-H SODIMM			55Y3706			ThinkPad Battery 12 (4-cell)			43R9256					
2GB PC3-8500 DDR3 L-H SODIMM			55Y3707			ThinkPad Battery 12++ (8-cell)			43R9257					
Other accessories on O-X200-T sheet						Other accessories at lenovo.com/accessories								

See footnotes for important warranty information
US models announced October 22, 2009

❖ Intel Centrino® 2 with vPro™ technology

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ThinkPad® X200 Tablet (7450)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ⁹	Optical in rpm	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing Preload	Workhorse (W) Global (G) Avail date
7450-2CU	SL9400	1.86	2GB	12.1" WXGA			160G 5400	Optional	Opt	❖ Intel 5100 ²⁸	WWAN upg			Bus 32 W G Oct 08
7450-28U	SL9300	1.60	2GB	12.1" WXGA		Cam	250G 5400	Optional	Opt	❖ Intel 5300 ²⁸	WWAN upg	2G Turbo	Yes	Bus 32 W G Oct 08
7450-EDU	SL9400	1.86	2GB	12.1" WXGA	Touch LED		160G 7200	Optional	Opt	❖ Intel 5100	WWAN upg		Yes	Bus 32 W G Oct 08
7450-8HU	SL9400	1.86	2GB	12.1" WXGA		LED Cam	160G 7200	Optional	Opt	❖ Intel 5100	WWAN upg		Yes	Bus 32 W G Oct 08
7450-9GU	SL9400	1.86	2GB	12.1" WXGA		Cam	160G 7200	Optional	Opt	❖ Intel 5300	WWAN upg		Yes	XP Tab W G Oct 08
7450-EYU	SL9300	1.60	2GB	12.1" WXGA	Touch LED	Cam	160G 5400	Optional	Opt	❖ Intel 5300	WWAN upg		Yes	XP Tab Oct 08
7450-FDU	SL9400	1.86	2GB	12.1" WXGA	Touch LED		160G 7200	Optional	Opt	❖ Intel 5100	WWAN upg		Yes	XP Tab W G Oct 08
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ❖ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader®		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available													
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader®		
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>Touch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus													
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies		
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz													
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys											Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	None											65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
ThinkLight™	None													
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy													
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy													
Case	Lithium Ion 8-cell													
Battery - type	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr													
Battery - life ¹⁰														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice	<i>Optional:</i> X200 UltraBase media slice (see right side)													
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)													
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)													
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3													
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)													
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator													
UWB	None													
Modem	56K V.92 ⁶ modem													
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC3-8500 DDR3 L-H SODIMM					55Y3706	ThinkPad Battery 12 (4-cell)				43R9256				
2GB PC3-8500 DDR3 L-H SODIMM					55Y3707	ThinkPad Battery 12++ (8-cell)				43R9257				
Other accessories on O-X200-T sheet	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information

US models announced September 23, 2008

✗ US models withdrawn effective September or December 2009

✦ Intel Centrino® 2 with vPro™ technology

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(CML1-2) September 2008

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ⁹	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Pre- load	Avail date
7450-8UU	SL9400	1.86	2GB	12.1" WXGA		LED Cam	80GBSSD	DVD±RW	UltraBase	Intel 5300 ²⁸	AT&T ²³	None	Yes	8	Bus 32	Dec 08	
✖ 7450-G9U	SL9300	1.60	2GB	12.1" WXGA			128G SSD			Intel 5100 ²⁸	WWAN upg	None	Yes	4	Bus 32	Dec 08	
7450-GDU	SL9400	1.86	2GB	12.1" WXGA		LED Cam	128G SSD			Intel 5300	WWAN upg	None	Yes	8	Bus 32	Dec 08	
✖ 7450-GEU	SL9400	1.86	2GB	12.1" WXGA Touch		LED Cam	128G SSD			Intel 5300	WWAN upg	None	Yes	8	Bus 32	Dec 08	
✖ 7450-GAU	SL9400	1.86	2GB	12.1" WXGA		Cam	128G SSD			WiMAX	WWAN upg	None	Yes	8	Bus 32	Jan 09	
✖ 7450-GBU	SL9400	1.86	2GB	12.1" WXGA		LED Cam	128G SSD			WiMAX	WWAN upg	None	Yes	8	Bus 32	Jan 09	
✖ 7450-GCU	SL9400	1.86	2GB	12.1" WXGA Touch		LED Cam	128G SSD			WiMAX	WWAN upg	None	Yes	8	Bus 32	Jan 09	
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ✦ Vista Premium logo					
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available											Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high removable, upgradable, shock mounted storage, supports second disk in optional or standard X200 UltraBase																
Widescreen display	Some: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen Some: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen Touch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)																
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies					
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45																
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536 @ 75Hz																
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys																
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																
Touch pad	None																
ThinkLight™	None																
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.8 lb (1.76kg)																
Weight ²	Color: black; Material: magnesium alloy																
Case	Lithium Ion 4-cell or 8-cell																
Battery - type	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr																
Battery - life ¹⁰																	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)																
Media slice	Some: X200 UltraBase media slice (see right side)																
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)																
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)																
Mini PCI Express	Three Mini PCI Express slots																
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)																
Intel 5300 ²⁸	Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3																
WiMAX	Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)																
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)																
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T																
2G Turbo	None																
UWB	None																
Modem	56K V.92 ⁶ modem																
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator																
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1																
Intel AMT	Intel Active Management Technology (iAMT)																
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack																
Security	Power-on password, hard disk password, supervisor password, security keyhole																
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant																
Fingerprint reader	Some: Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip																
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																
1GB PC3-8500 DDR3 L-H SODIMM				55Y3706			ThinkPad Battery 12 (4-cell)			43R9256							
2GB PC3-8500 DDR3 L-H SODIMM				55Y3707			ThinkPad Battery 12++ (8-cell)			43R9257							
Other accessories on O-X200-T sheet				Other accessories at lenovo.com/accessories													

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

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✖ US models announced January 6, 2009; previous models December 9, 2008

(CML1-6) January 2009

✖ US models withdrawn effective September or December 2009

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ²	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing cells	Bat- tery	Pre- load	Avail date
7450-9RU	SL9600	2.13	2GB	12.1" WXGA	LED	Cam	160GB	7200	DVD±RW	Ultrabase	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	8	Bus 32	May 09
7450-9SU	SL9600	2.13	2GB	12.1" WXGA	LED	Cam	128G	SSD			❖ Intel 5100	AT&T ²³	None	Yes	8	Bus 32	May 09
7450-2NU	SL9600	2.13	2GB	12.1" WXGA			160GB	5400			❖ Intel 5100	WWAN upg	None	Yes	8	Bus 32	May 09
Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ❖ Vista Premium logo					
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std <i>X200 UltraBase</i>																
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)																
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus																
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45																
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz											Supports ThinkVantage® technologies					
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																
Touch pad	None																
ThinkLight™	None																
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)																
Weight ²																	
Case color	Black																
Case material	Magnesium alloy																
Battery - type	Lithium Ion 8-cell																
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr																
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)																
Media slice	<i>Some:</i> X200 UltraBase media slice (see right side)																
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)																
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)																
Mini PCI Express	Three Mini PCI Express slots																
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)																
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)																
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T																
2G Turbo	None																
UWB	None																
Modem	56K V.92 ⁶ modem																
Bluetooth™	Bluetooth 2.1 wireless, LED indicator																
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1																
Intel AMT	Intel Active Management Technology (iAMT)																
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack																
Security	Power-on password, hard disk password, supervisor password, security keyhole																
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant																
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip																
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																
1GB PC3-8500 DDR3 L-H SODIMM						55Y3706	ThinkPad Battery 12 (4-cell)					43R9256					
2GB PC3-8500 DDR3 L-H SODIMM						55Y3707	ThinkPad Battery 12++ (8-cell)					43R9257					
Other accessories on O-X200-T sheet						Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US models announced April 28, 2009

❖ Intel Centrino® 2 with vPro™ technology

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(CML1-8) May 2009

ThinkPad® X200 Tablet (7450) - September 2009

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Bat- tery Blue/ Fing	Pre- load	Avail date
7450-66U	SL9600	2.13	2GB	12.1" WXGA <i>MultiTouch</i>	LED	Cam	160GB 5400			❖ Intel 5100 ²⁸	WWAN upg	8	Bus 32	Sep 09
7450-67U	SL9600	2.13	2GB	12.1" WXGA <i>Outdoor</i>	LED		250GB 5400	DVD±RW	Ultrabase	❖ Intel 5100	AT&T ²³	Yes 8	XP Tab	Sep 09
7450-68U	SL9600	2.13	2GB	12.1" WXGA <i>MultiTouch</i>	LED	Cam	160GB 7200			❖ Intel 5100	WWAN upg	Yes 8	Bus 32	Sep 09
7450-69U	SL9600	2.13	2GB	12.1" WXGA <i>Outdoor</i>	LED	Cam	160GB 7200			❖ Intel 5100	WWAN upg	Yes 8	Bus 32	Sep 09
7450-6AU	SL9600	2.13	2GB	12.1" WXGA <i>MultiTouch</i>	LED	Cam	160GB 7200			❖ Intel 5300 ²⁸	WWAN upg	Yes 8	XP Tab	Sep 09
7450-6BU	SL9600	2.13	2GB	12.1" WXGA <i>Outdoor</i>	LED	Cam	160GB 7200			11n ²⁸	WWAN upg	Yes 8	Bus 32	Sep 09
7450-6CU	SL9600	2.13	2GB	12.1" WXGA <i>Outdoor</i>	LED		320GB 7200			❖ Intel 5100	Verizon ¹⁶	Yes 8	Bus 32	Sep 09
• These models have a depot repair service 3-year limited warranty														
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ❖ Vista models: Vista Premium logo			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (5400 or 7200 rpm), 250GB (5400 rpm) or 320GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase													
Widescreen display	<i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)													
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)										Supports ThinkVantage® technologies			
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45										ThinkPad X200 UltraBase™			
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @ 75Hz										• Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	None													
ThinkLight™	None													
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy													
Weight ²														
Case														
Battery - type	Lithium Ion 8-cell													
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr													
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice	<i>Some:</i> X200 UltraBase media slice (see right side)													
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)													
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)													
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3													
11n ²⁸	<i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II													
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)													
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon													
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T													
2G Turbo	None													
UWB	None													
Modem	56K V.92 ⁶ modem													
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator													
Ethernet	<i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced September 15, 2009

❖ Intel Centrino® 2 with vPro™ technology

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(CML2-1) March 2010

ThinkPad® X200 Tablet (7450) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Widescreen display	Disk SATA GB ⁸	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Mini PCIe tery	Workhorse (W) Global (G)	Available date
7450-DDU	SL9600	2.13	2GB	12.1" WXGA MultiTouch	160G	7200	Optional	Optional	❖ Intel 5300 ²⁸	WWAN upg	None	8	Pro 64 G	Oct 09

Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows			
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>													
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch), WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) Camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)													
Camera	Camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)										Supports ThinkVantage® technologies			
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45										ThinkPad X200 UltraBase™			
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)										• Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy													
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 8-cell <i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr													
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice Multicard Reader ExpressCard/54 Ports	<i>Optional: X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless*, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152) <i>Some:</i> None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (AMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip													
Security Security chip Fingerprint reader											65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM Other accessories on X-200-T sheet	55Y3706 55Y3707		ThinkPad Battery 12 (4-cell) ThinkPad Battery 12+4 (8-cell) Other accessories at lenovo.com/accessories		43R9256 43R9257									

See footnotes for important warranty information
US model announced October 22, 2009

◆ Intel Centrino® 2 with vPro™ technology

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(CML2-5) October 2009

ThinkPad® X200 Tablet (7453) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ⁶	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB Blue/ or TurboFing	Mini PCIe Preload	Workhorse (W) Global (G) Avail Preload GMP (P) date
7453-2CU	SL9400	1.86	2GB	12.1" WXGA			160G	5400			❖ Intel 5100 ²⁸	WWAN upg	No	Bus 32 W G P	Oct 08
❖ 7453-EDU	SL9400	1.86	2GB	12.1" WXGA TouchLED			160G	7200			❖ Intel 5100	WWAN upg	No	Yes Bus 32 W	Oct 08
7453-9GU	SL9400	1.86	2GB	12.1" WXGA		Cam	160G	7200			❖ Intel 5300 ²⁸	WWAN upg	No	Yes XP Tab W G P	Oct 08
❖ 7453-FDU	SL9400	1.86	2GB	12.1" WXGA TouchLED			160G	7200			❖ Intel 5100	WWAN upg	No	Yes XP Tab W G P	Oct 08
7453-8HU	SL9400	1.86	2GB	12.1" WXGA		LED Cam	160G	7200			❖ Intel 5100	WWAN upg	No	Yes Bus 32 W	Oct 08
❖ 7453-9RU	SL9600	2.13	2GB	12.1" WXGA		LED Cam	160G	7200	DVD±RW	UltraBase	❖ Intel 5100	WWAN upg	No	Yes Bus 32 G P	Apr 09

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9400 or SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ❖ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Microsoft® Office 2007 Trial (60-day) Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Non-Italics: standard memory in 1 socket; 1 socket available														
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase														
Widescreen display	Some: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen Some: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen Touch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)														
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus														
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45														
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz														
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	None														
ThinkLight™	None														
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg) Color: black; Material: magnesium alloy														
Weight ²	Lithium Ion 8-cell														
Case	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr														
Battery - type															
Battery - life ¹⁰															
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice	Some: X200 UltraBase media slice (see right side)														
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)														
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)														
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
Intel 5300 ²⁸	Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3														
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)														
2G Turbo	None														
UWB	None														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Fingerprint reader	Some: Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706			ThinkPad Battery 12 (4-cell)			43R9256								
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707			ThinkPad Battery 12++ (8-cell)			43R9257								
Other accessories on O-X200-T sheet															
Other accessories at lenovo.com/accessories															

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

❖ US model announced April 28, 2009; previous models on September 23, 2008

❖ US models withdrawn effective December 2009

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(CML1-3) May 2009

ThinkPad® X200 Tablet (7453) - Onsite (September 2009)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ⁹	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue/ Fing	Preload	Workhorse (W) Global (G) Avail GMP (P)	date					
7453-68U	SL9600	2.13	2GB	12.1" WXGA	MultiTouch	LED	160G	7200	Optional	Optional	Intel 5100 ²⁸	WWAN upg	Yes	Bus 32	G P	Sep 09					
7453-69U	SL9600	2.13	2GB	12.1" WXGA	Outdoor	LED	160G	7200	Optional	Optional	Intel 5100	WWAN upg	Yes	Bus 32	G P	Sep 09					
7453-6AU	SL9600	2.13	2GB	12.1" WXGA	MultiTouch	LED	160G	7200	Optional	Optional	Intel 5300 ²⁸	WWAN upg	Yes	XP Tab	G P	Sep 09					
7453-6BU	SL9600	2.13	2GB	12.1" WXGA	Outdoor	LED	160G	7200	Optional	Optional	11n ²⁸	WWAN upg	Yes	Bus 32	G P	Sep 09					
• These models are part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty																					
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ♦ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader®									
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available																				
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase																				
Widescreen display	Outdoor: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS MultiTouch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)																				
Camera	Some: camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)																				
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45											Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378									
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz																				
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys																				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																				
Touch pad	None																				
ThinkLight™	None																				
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg) Color: black; Material: magnesium alloy																				
Weight ²	Lithium Ion 8-cell																				
Case	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr																				
Battery - type																					
Battery - life ¹⁰																					
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)																				
Media slice	Optional: X200 UltraBase media slice (see right side)																				
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)																				
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																				
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)																				
Mini PCI Express	Three Mini PCI Express slots																				
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)																				
Intel 5300 ²⁸	Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3																				
11n ²⁸	Some: 11b/g/n wireless, Mini-PCIe Adapter II																				
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)																				
2G Turbo	None																				
UWB	None																				
Modem	56K V.92 ⁶ modem																				
Bluetooth™	Bluetooth 2.1 wireless, LED indicator																				
Ethernet	Non-vPro model: Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 vPro model: Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1																				
Intel AMT	Intel Active Management Technology (iAMT)																				
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack																				
Security	Power-on password, hard disk password, supervisor password, security keyhole																				
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant																				
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip																				
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available																				
1GB PC3-8500 DDR3 L-H SODIMM			55Y3706	ThinkPad Battery 12 (4-cell)		43R9256															
2GB PC3-8500 DDR3 L-H SODIMM			55Y3707	ThinkPad Battery 12++ (8-cell)		43R9257															
Other accessories on O-X200-T sheet	Other accessories at lenovo.com/accessories																				

See footnotes for important warranty information
US models announced September 15, 2009

♦ Intel Centrino® 2 with vPro™ technology

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(CML2-2) October 2009

ThinkPad® X200 Tablet (7453) - Onsite (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁶ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo cells	Workhorse (W) Global (G) Avail Preload GMP(P) date
7453-DDU	SL9600	2.13	2GB	12.1" WXGA <i>MultiTouch</i>	160G 7200	Optional	Optional	❖ Intel 5300 ²⁸	WWAN upg	None	8 Pro 64 G P Oct 09

• **This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**

Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache			Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available			Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software• ThinkVantage Toolbox• Lenovo Online Data Backup• Skype™ for Windows• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase					
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch), WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)					
Camera	Camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)					
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45			Supports ThinkVantage® technologies		
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz (VGA)			ThinkPad X200 UltraBase™ <ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 Series• Easily connects to the bottom of the X200 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">– DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292– DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214– Serial ATA Hard Drive Bay Adapter III 43N3412• Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB Disk 7200 rpm 43N3411		
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys			Other features: <ul style="list-style-type: none">• Power button (front)• Stereo speakers (2 watt)• Security key lock, security keyhole, and optional security screw• Analog DB-15 monitor port• DisplayPort (supports single-link DVI-D via cable 45J7915)• Four USB 2.0 ports• Gigabit ethernet port• Microphone in and headphone out• Second battery charger• Requires 65 or 90 watt AC adapter• 1.6 lb; 730g		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	None			65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
ThinkLight™	None					
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg) Color: black; Material: magnesium alloy					
Weight ²						
Case	Lithium Ion 8-cell					
Battery - type	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr					
Battery - life ¹⁰						
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)					
Media slice	Optional: X200 UltraBase media slice (see right side)					
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)					
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)					
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)					
Mini PCI Express	Three Mini PCI Express slots					
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3					
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)					
2G Turbo	None					
UWB	None					
Modem	56K V.92 ⁶ modem					
Bluetooth™	Bluetooth 2.1 wireless, LED indicator					
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1					
Intel AMT	Intel Active Management Technology (iAMT)					
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant					
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip					
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available					
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 12 (4-cell)	43R9256			
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 12++ (8-cell)	43R9257			
Other accessories on O-X200-T sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information
US model announced October 22, 2009

❖ Intel Centrino® 2 with vPro™ technology

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(CML2-6) October 2009

ThinkPad® X200 Tablet (7450) - Education (EasyServ)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁶ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB Blue/ or Turbo Fing	Bat- tery cells	Workhorse (W) Global (G) Avail date
7450-2DU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	8 Bus 32 W Oct 08
7450-2KU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 7200	Optional	Optional	❖ Intel 5100	WWAN upg	None	Yes	8 Ult 32 W Feb 09
7450-2PU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 5400	Optional	Optional	❖ Intel 5100	WWAN upg	None	Yes	8 Bus 32 W Mar 09

• **These models have an EasyServ™,19 depot repair service 3-year limited warranty**
 • Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
 • Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows® Vista® Business 32 - Some: Genuine Windows Vista Ultimate 32 ❖ Vista Premium logo
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director)
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>	Supports ThinkVantage® technologies
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen, WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) Camera on top of screen, 1.3-megapixel, fixed focus	
Camera		
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45	
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536 @ 75Hz</i>	
Keyboard TrackPoint®	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys	
Touch pad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
ThinkLight™	None	
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)	
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy	
Case	Lithium Ion 8-cell	
Battery - type	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr	
Battery - life ¹⁰		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)	
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)	
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54	
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wi-Fi Link 5100, 1x2 (Shirley Peak)	
WWAN upg	Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152)	
2G Turbo	None	
UWB	None	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades²² available	
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 12 (4-cell) 43R9256
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 12++ (8-cell) 43R9257
Other accessories on O-X200-T sheet		Other accessories at lenovo.com/accessories

65-watt (GMA graphics) AC Adapter
 Climate Savers® certified
 EPEAT Silver rating
 ENERGY STAR® 5.0-compliant
 ROHS-compliant
 International Warranty Service¹⁷
 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

US model announced March 24, 2009; previous models on September 23, 2008 or February 17, 2009

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(CML1-4) April 2009

ThinkPad® X200 Tablet (7453) - Education (Onsite)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁶	Optical in rpm	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing	Workhorse (W) Global (G) Avail date
7453-2DU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	8 Bus 32 W Oct 08
7453-2KU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 7200	Optional	Optional	❖ Intel 5100	WWAN upg	None	Yes	8 Ult 32 W Feb 09

- **These models have a limited onsite service²⁴ 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache			Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® Vista® Business 32 - <i>Some:</i> Genuine Windows Vista Ultimate 32 ✧ Vista Premium logo		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available					
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>			Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader®		
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen, WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) Camera on top of screen, 1.3-megapixel, fixed focus					
Camera	Camera on top of screen, 1.3-megapixel, fixed focus					
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45			Supports ThinkVantage® technologies		
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @ 75Hz			ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	None					
ThinkLight™	None					
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy					
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy					
Case	Lithium Ion 8-cell					
Battery - type	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr					
Battery - life ¹⁰						
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)					
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)					
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)					
ExpressCard slot	One ExpressCard/34 or ExpressCard/54					
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)			Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Mini PCI Express	Three Mini PCI Express slots					
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)					
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)					
2G Turbo	None					
UWB	None					
Modem	56K V.92 ⁶ modem					
Bluetooth™	Bluetooth 2.1 wireless, LED indicator					
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1					
Intel AMT	Intel Active Management Technology (iAMT)					
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant					
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip					
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available					
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 12 (4-cell)	43R9256			
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 12++ (8-cell)	43R9257			
Other accessories on O-X200-T sheet		Other accessories at lenovo.com/accessories				

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

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US model announced February 17, 2009; previous model on September 23, 2008

(CML1-5) February 2009

Memory

1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann	03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann	03/17/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann	06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann	06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann	08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad X200 UltraBase	43R8781	ann	08/05/08

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Tablet

ThinkPad Digitizer Pen	41U3143	ann	11/14/06
ThinkPad Tablet Tether (3-pack)	41U4820	ann	11/14/06

Batteries

ThinkPad Battery 12 (4-cell)	43R9256	ann	09/23/08
ThinkPad Battery 12++ (8-cell)	43R9257	ann	09/23/08
ThinkPad External Battery Charger ⁴⁷	40Y7625	ann	09/20/05

⁴⁷ Only supports ThinkPad Battery 12 (4-cell) 43R9256

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann	01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases**X200 Tablet:**

ThinkPad X200 Tablet Sleeve	43R9115	ann	09/23/08
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Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann	05/13/08
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Up to 15.4" widescreen models:

Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann	08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X201
(TrackPoint model)



Lenovo ThinkPad X201 with
ThinkPad Battery 47++ (9-cell)
43R9255



Lenovo ThinkPad X201
(UltraNav model)



Lenovo ThinkPad X201
(UltraNav model)



ThinkPad X200 UltraBase
43R8781



ThinkPad 65W AC Adapter
40Y7696

ThinkPad® X201 (3249) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max turbo		Memory	Wide- screen display	Camera	Disk SATA		Optical in	ThinkPad X200	PCIe		Carrier	Intel vPro	Preload	Avail date
		(GHz)	(GHz)				GB	rpm			Mini Card 802.11	Mini Card WWAN				
3249-2RU	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	250G	5400	DVD±RW	UltraBase	Intel 6200 ²⁸	WWAN upg		vPro	XP Pro	Mar 10
3249-2PU	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M	320G	7200	DVD±RW	UltraBase	Intel 6200	Gobi 2000	AT&T ²³	vPro	XP Pro	Mar 10
3249-2SU	i5-540M	2.53	3.06	2GB	12.1" WXGA		250G	5400			Intel 6200	WWAN upg		vPro	XP Pro	Mar 10
3249-38U	i5-520M	2.40	2.93	2GB	12.1" WXGA		250G	5400			Intel 6200	WWAN upg		vPro	XP Pro	Apr 10

- *These small and medium business (SMB) models are part of the US TopSeller™ Program*

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-Italics:</i> standard memory in 1 socket; 1 socket available	
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>	
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Camera		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz	
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)	
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy	
Case	Lithium Ion 6-cell	
Battery - type	up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr	
Battery - life ¹⁰		
Chipset	Mobile Intel QM57 Express Chipset	
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)	
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2	
WWAN upg	<i>Some:</i> Wireless WAN upgradable	
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	
Carrier	<i>Some:</i> AT&T®, contract required with service provider	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

👉 US model announced April 6, 2010; previous models on March 2, 2010

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(MOC3-7) April 2010

ThinkPad® X201 (3249) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz) (GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Intel vPro	Preload	Avail date
3249-2EU	i5-540M	2.53	3.06	2GB	12.1" WXGA	250G 5400			Intel 6200 ²⁸	WWAN upg		vPro	Pro 32	Mar 10
3249-2FU	i5-540M	2.53	3.06	2GB	12.1" WXGA	320G 7200	DVD±RW	UltraBase	Intel 6200	WWAN upg		vPro	Pro 32	Mar 10
3249-2GU	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	Gobi 2000	Verizon ¹⁶	vPro	Pro 32	Mar 10
3249-2HU	i5-520M	2.40	2.93	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	WWAN upg		vPro	Pro 32	Mar 10
3249-2TU	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	WiMAX	WWAN upg		vPro	Pro 64	Mar 10
3249-2UU	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	Gobi 2000	AT&T ²³	vPro	Pro 64	Mar 10
3249-2VU	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	WWAN upg		vPro	Pro 64	Mar 10
3249-C2U	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M 160G 7200			Intel 6200	WWAN upg		vPro	Pro 64	Apr 10
3249-C3U	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M 320G 7200			Intel 6200	WWAN upg		vPro	Pro 64	Apr 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models)			
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase										Supports ThinkVantage® technologies			
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Some: camera on top of screen, 2.0-megapixel, fixed focus										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378			
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)													
Weight ² Case Battery - type Battery - life ¹⁰	<i>Color:</i> black; <i>Material:</i> magnesium alloy Lithium Ion 6-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr													
Chipset	Mobile Intel QM57 Express Chipset													
Media slice Multicard reader ExpressCard/54 Ports	Some: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
PCIe Mini Card Intel 6200 ²⁸ WiMAX	Two PCI Express Mini Card slots Some: 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX													
WWAN upg Gobi™ 2000	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: AT&T® or Verizon®, contract required with service provider 56K V.92® modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

US models announced April 20, 2010; previous models on February 23 or March 2, 2010

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(MOC3-1) April 2010

Type-model	Proc- essor	Base (GHz)	Max turbo (GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ⁶ rpm	Optical in UltraBase	ThinkPad X200 Mini Card	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger reader	Blue- tooth	Bat- tery cells	Intel vPro	Workhorse (W)		
																Preload	Educ	Global (G) Avail date
3626-R3U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200			Intel 6200 ²⁸	upg	Fing	Blue	6	vPro	Pro 32		Mar 10
3626-11U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200			Intel 6200	upg	Fing	Blue	6	vPro	Pro 32	G	Mar 10
3626-F2U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200			Intel 6200	upg		Blue	6	vPro	Pro 32	W	Mar 10
3626-F3U	i5-540M	2.53	3.06	4GB	12.1" WXGA		320G 7200			Intel 6200	Gobi	Fing	Blue	6	vPro	Pro 64	W	Mar 10
3626-F4U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 5400	DVD±RW	UltraB	Intel 6200	upg	Fing	Blue	9	vPro	Pro 32	W	Mar 10
3626-F5U	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M	320G 7200	DVD±RW	UltraB	Intel 6200	upg	Fing	Blue	6	vPro	Pro 64	W	Mar 10
3626-F6U	i5-540M	2.53	3.06	3GB	12.1" WXGA	2.0M	128G SSD			Intel 6200	upg	Fing	Blue	6	vPro	Pro 32	W	Mar 10
3626-F7U	i5-540M	2.53	3.06	4GB	12.1" WXGA		320G 7200			Intel 6300 ²⁸	upg	Fing	Blue	9	vPro	Pro 32	W G	Mar 10
3626-F8U	i5-540M	2.53	3.06	2GB	12.1" WXGA		250G 5400			Intel 6200				4	vPro	Pro 32	W G	Mar 10
3626-F9U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200	DVD±RW	UltraB	Intel 6200	upg	Fing	Blue	6	vPro	Pro 32	W G	Mar 10
3626-FAU	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	320G 7200			Intel 6200	upg	Fing	Blue	9	vPro	Pro 32	W G	Mar 10
3626-FBU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	250G 5400			Intel 6200	upg	Fing	Blue	6	vPro	Pro 32	W G	Mar 10
3626-HUU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	320G 7200			Intel 6300	upg	Fing	Blue	6	vPro	Pro 32	W G	Apr 10
3626-HVU	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G 7200			Intel 6200	upg			6	vPro	Pro 32	W G	Apr 10
3626-12U	i5-520M	2.40	2.93	2GB	12.1" WXGA		160G 7200			Intel 6200	Gobi	Fing	Blue	6	vPro	Pro 64	W	Apr 10
3626-13U	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	160G 7200	DVD±RW	UltraB	Intel 6200	upg	Fing	Blue	6	vPro	Pro 64	W	Apr 10
3626-14U	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G 7200			Intel 6200	upg	Fing	Blue	9	vPro	Pro 64	W G	Apr 10

• These models have a depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models)
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 250GB (5400 rpm), or 320GB (5400 rpm or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard <i>X200 UltraBase</i>	
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	Supports ThinkVantage® technologies
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz	ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB FDE 7200 rpm 43N3411
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)	
Weight ² Case Battery - type Battery - life ¹⁰	<i>Color:</i> black; <i>Material:</i> magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr	
Chipset	Mobile Intel QM57 Express Chipset	
Media slice Multicard reader ExpressCard/54 Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
PCIe Mini Card Intel 6200 ²⁸ Intel 6300 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>F3U/12U models:</i> Verizon®, contract required with service provider 56K V.92 ⁵ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

® US models announced April 20, 2010; previous models on February 23 or April 6, 2010

ThinkPad® X201 (3680) - Onsite (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max		Memory	Wide- screen display	Camera	Disk SATA GB ⁶	rpm	Optical in UltraBase	ThinkPad X200 Mini Card	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Intel vPro	Workhorse (W)				
		Base (GHz)	turbo (GHz)											Global (G)	Avail date			
3680-F7U	i5-540M	2.53	3.06	4GB	12.1" WXGA		320G	7200			Intel 6300 ²⁸	upg	Yes	9	vPro	Pro 32	W G P	Mar 10
3680-F8U	i5-540M	2.53	3.06	2GB	12.1" WXGA		250G	5400			Intel 6200 ²⁸			4	vPro	Pro 32	W G P	Mar 10
3680-F9U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G	7200	DVD±RW	UltraB	Intel 6200	upg	Yes	6	vPro	Pro 32	W G P	Mar 10
3680-FAU	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	320G	7200			Intel 6200	upg	Yes	9	vPro	Pro 32	W G P	Mar 10
3680-FBU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	250G	5400			Intel 6200	upg	Yes	6	vPro	Pro 32	W G P	Mar 10
3680-11U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G	7200			Intel 6200	upg	Yes	6	vPro	Pro 32	G P	Mar 10
3680-PKU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	320G	7200			Intel 6300	upg	Yes	6	vPro	Pro 32	W G P	Apr 10
3680-PLU	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G	7200			Intel 6200	upg		6	vPro	Pro 32	W G P	Apr 10
3680-14U	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G	7200			Intel 6200	upg	Yes	9	vPro	Pro 64	W G P	Apr 10

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>	Supports ThinkVantage® technologies
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz	Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy	
Weight ²	Lithium Ion 4-cell, 6-cell, or 9-cell	
Case	<i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr	
Battery - type		
Battery - life ¹⁰		
Chipset	Mobile Intel QM57 Express Chipset	
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)	
Multicard reader ExpressCard/54 Ports	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
PCIe Mini Card Intel 6200 ²⁸ Intel 6300 ²⁸ WWAN upg	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable	
Modem	56K V.92 ⁶ modem	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378

See footnotes for important warranty information

US model announced April 20, 2010; previous models on February 23 or April 6, 2010

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(MOC3-4) April 2010

ThinkPad® X201 (3626) - Education (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue/ Fing	Intel vPro	Preload	Avail date	
3626-N2U	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	250G	5400	Optional	Optional	Intel 6200 ²⁸	WWAN upg	Yes	vPro Pro 32	Mar 10
<ul style="list-style-type: none">• This model has a depot repair service 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.															
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (only some listed) • Education software - Microsoft Office OneNote® 2007 (and CD)			
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>											Supports ThinkVantage® technologies			
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio											ThinkPad X200 UltraBase™ <ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 and X201 Series• Easily connects to the bottom of the X200 or X201 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">– DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292– DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214– Serial ATA Hard Drive Bay Adapter III 43N3412• Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB Disk 7200 rpm 43N3411 Other features: <ul style="list-style-type: none">• Power button (front)• Stereo speakers (2 watt)• Security key lock, security keyhole, and optional security screw• Analog DB-15 monitor port• DisplayPort (supports single-link DVI-D via cable 45J7915)• Four USB 2.0 ports• Gigabit ethernet port• Microphone in and headphone out• Second battery charger• Requires 65 or 90 watt AC adapter• 1.6 lb; 730g			
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz														
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)														
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy														
Case	Lithium Ion 6-cell														
Battery - type	<i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr														
Battery - life ¹⁰															
Chipset	Mobile Intel QM57 Express Chipset														
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side)														
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)														
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)														
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2														
WWAN upg	Wireless WAN upgradable														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			

See footnotes for important warranty information
US model announced February 23, 2010

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ThinkPad® X201 (3680) - Education (Onsite) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)(GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue/ Fing Intel vPro	Preload	Avail date			
3680-N2U	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	250G	5400	Optional	Optional	Intel 6200 ²⁸	WWAN upg	Yes	vPro	Pro 32	Mar 10
<ul style="list-style-type: none">• This model has a limited onsite service²⁴ 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32					
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Education software - Microsoft Office OneNote® 2007 (and CD) - Adobe Digital School Collection					
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>										Supports ThinkVantage® technologies					
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio										ThinkPad X200 UltraBase™ <ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 and X201 Series• Easily connects to the bottom of the X200 or X201 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">– DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292– DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214– Serial ATA Hard Drive Bay Adapter III 43N3412Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB Disk 7200 rpm 43N3411 Other features: <ul style="list-style-type: none">• Power button (front)• Stereo speakers (2 watt)• Security key lock, security keyhole, and optional security screw• Analog DB-15 monitor port• DisplayPort (supports single-link DVI-D via cable 45J7915)• Four USB 2.0 ports• Gigabit ethernet port• Microphone in and headphone out• Second battery charger• Requires 65 or 90 watt AC adapter• 1.6 lb; 730g					
Camera	Camera on top of screen, 2.0-megapixel, fixed focus															
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz															
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)															
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy															
Case	Lithium Ion 6-cell															
Battery - type	<i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr															
Battery - life ¹⁰																
Chipset	Mobile Intel QM57 Express Chipset															
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side)															
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)															
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)															
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)															
PCIe Mini Card	Two PCI Express Mini Card slots															
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2															
WWAN upg	Wireless WAN upgradable															
Modem	56K V.92 ⁶ modem															
Bluetooth™	Bluetooth 2.1 wireless, LED indicator															
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, TCG 1.2-compliant															
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available															
										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378						

See footnotes for important warranty information
US model announced February 23, 2010

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ThinkPad® X201i (3249) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Intel vPro	Preload	Avail date
3249-J2U	i3-330M	2.13	2GB	12.1" WXGA	None	250G 5400	Optional	Optional	Intel 1000	WWAN upg	No	Pro 32	Mar 10
3249-MCU	i3-330M	2.13	2GB	12.1" WXGA	None	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Apr 10

- *These small and medium business (SMB) models are part of the US TopSeller™ Program*

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3 processor i3-330M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ Supports ThinkVantage® technologies
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB ⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>	ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio	
Camera	None	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA) @75Hz	
Keyboard TrackPoint®	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys	
Touchpad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)	
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy	
Case	Lithium Ion 6-cell	
Battery - type	4-cell: up to 3.4 hr; 6-cell: up to 6.7 hr; 9-cell: up to 11.3 hr	
Battery - life ¹⁰		
Chipset	Mobile Intel QM57 Express Chipset	
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side)	
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
ExpressCard/54 Ports	One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
Intel 1000	11b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Wireless-N 1000, 1x2	
WWAN upg	Wireless WAN upgradable	
Modem	56K V.92 ⁶ modem	
Bluetooth™	None	
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	None	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

US model announced April 20, 2010; previous model on February 23, 2010

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ThinkPad®



Lenovo® ThinkPad X201s
(TrackPoint model)



Lenovo ThinkPad X201s



Lenovo ThinkPad X201s
(UltraNav model)



Lenovo ThinkPad X201s
(TrackPoint model)



Lenovo ThinkPad X201s
(UltraNav model)



ThinkPad Battery 47++ (9-cell)
43R9255

ThinkPad® X201s (5143) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Disk SATA GB ⁶ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card Blue/WWAN	Bat-tery cells	Intel vPro	Preload	Avail date	
5143-28U	i7-640LM	2.13	2.93	4GB	12.1" WXGA+	320G 7200	Optional	Optional	Intel 6200 ²⁸	None	Yes	6	vPro	Pro 32	Mar 10

- Compared to the X201, the X201s has lighter weight, low voltage processors, and roll cage in display cover
- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This model has a depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i7 processor i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache			Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32		
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available			Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update		
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>			Supports ThinkVantage® technologies		
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None			ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz</i>			Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 20.7-28.7mm <i>without UltraBase; 6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 20.7-35.3mm <i>4-cell:</i> from 2.51 lb (1.1kg); <i>6-cell:</i> from 2.79 lb (1.23kg); <i>9-cell:</i> from 3.13 lb (1.39kg)					
Weight ² Case color Case material	black <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy					
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>4-cell:</i> up to 3.7 hr; <i>6-cell:</i> up to 7.4 hr; <i>9-cell:</i> up to 12.3 hr					
Chipset	Mobile Intel QM57 Express Chipset					
Media slice Multicard Reader ExpressCard/54 Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)					
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack					
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip					
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available					

See footnotes for important warranty information
US model announced February 23, 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card Blue/WWAN	Bat- tery Intel vPro	Workhorse (W) Global (G)	Avail date
5397-FDU	i7-640LM	2.13	2.93	2GB	12.1" WXGA+	250G 5400			Intel 6200 ²⁸	None	Yes 4	vPro Pro 32 W G	Mar 10
5397-FEU	i7-640LM	2.13	2.93	3GB	12.1" WXGA+	320G 7200	DVD±RW	UltraB	Intel 6200	None	Yes 9	vPro Pro 32 W G	Mar 10
5397-FFU	i7-640LM	2.13	2.93	4GB	12.1" WXGA+	320G 7200			Intel 6200	None	Yes 6	vPro Pro 64 W G	Mar 10
5397-FGU	i7-640LM	2.13	2.93	2GB	12.1" WXGA+	250G 5400			Intel 6200	None	Yes 6	vPro Pro 32 W G	Mar 10

- Compared to the X201, the X201s has lighter weight, low voltage processors, and roll cage in display cover
- These models have a depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i7 processor i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager		
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 250GB⁸ (5400 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase										Supports ThinkVantage® technologies		
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536 (VGA)@75Hz										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 20.7-28.7mm <i>without UltraBase; 6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 20.7-35.3mm <i>4-cell:</i> from 2.51 lb (1.1kg); <i>6-cell:</i> from 2.79 lb (1.23kg); <i>9-cell:</i> from 3.13 lb (1.39kg)												
Weight ² Case color Case material	black <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.7 hr; <i>6-cell:</i> up to 7.4 hr; <i>9-cell:</i> up to 12.3 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice Multicard Reader ExpressCard/54 Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 None												
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		

See footnotes for important warranty information
US models announced February 23, 2010

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ThinkPad® X201s (5413) - Onsite (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Disk SATA GB ¹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Intel vPro	Whorse (W) Gbl (G) GMP (P)	Avail date
5413-FDU	i7-640LM	2.13	2.93	2GB	12.1" WXGA+	250G 5400			Intel 6200 ²⁸	None	Yes	4 vPro Pro 32 W G P	Mar 10
5413-FEU	i7-640LM	2.13	2.93	3GB	12.1" WXGA+	320G 7200	DVD±RW	UltraB	Intel 6200	None	Yes	9 vPro Pro 32 W G P	Mar 10
5413-FFU	i7-640LM	2.13	2.93	4GB	12.1" WXGA+	320G 7200			Intel 6200	None	Yes	6 vPro Pro 64 W G P	Mar 10
5413-FGU	i7-640LM	2.13	2.93	2GB	12.1" WXGA+	250G 5400			Intel 6200	None	Yes	6 vPro Pro 32 W G P	Mar 10

- Compared to the X201, the X201s has lighter weight, low voltage processors, and roll cage in display cover
- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i7 processor i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update		
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 250GB⁸ (5400 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase										Supports ThinkVantage® technologies		
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 20.7-28.7mm <i>without UltraBase; 6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 20.7-35.3mm <i>4-cell:</i> from 2.51 lb (1.1kg); <i>6-cell:</i> from 2.79 lb (1.23kg); <i>9-cell:</i> from 3.13 lb (1.39kg)												
Weight ² Case color Case material	black <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.7 hr; <i>6-cell:</i> up to 7.4 hr; <i>9-cell:</i> up to 12.3 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice Multicard Reader ExpressCard/54 Ports	Some: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 None												
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												

See footnotes for important warranty information
US models announced February 23, 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann 06/23/09

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad X200 UltraBase	43R8781	ann 08/05/08

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
X200s (WXGA+), X201s 12W Privacy Filter	43R2470	ann 08/05/08
X200/X200s (WXGA), X201 12W Privacy Filter	55Y9264	ann 04/07/09
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Batteries

ThinkPad Battery 47 (4-cell)	43R9253	ann 08/05/08
ThinkPad Battery 47+ (6-cell)	43R9254	ann 08/05/08
ThinkPad Battery 47++ (9-cell)	43R9255	ann 08/05/08
ThinkPad External Battery Charger	40Y7625	ann 09/20/05

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• BlackBerry charge tip (L8a)	41R4478	ann 12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07

More information at www.lenovopowertips.com

Carrying Cases

Up to 12" widescreen models:

ThinkPad 12W Case Sleeve	51J0476	ann 08/18/09
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Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann 05/13/08
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Up to 15.4" widescreen models:

Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann 05/05/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115



Lenovo ThinkPad X201 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115

ThinkPad® X201 Tablet (2985) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCle Mini Card WWAN	Battery Intel vPro	Carrier	Preload	Avail date
2985-EUU	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry		250G 5400			WWAN upg	4 vPro	AT&T ²³	XP Pro	Mar 10
2985-EVU	i7-640LM	2.13	2.93	4GB	12.1" WXGA Entry	2.0M	320G 7200	DVD±RW	UltraB	Gobi 2000	8 vPro		XP Pro	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache	Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>	
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)	
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz	Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None	Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)	
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy	
Case	Lithium Ion 4-cell or 8-cell	
Battery - type	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr	
Battery - life ¹⁰		
Chipset	Mobile Intel QM57 Express Chipset	
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)	
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
ExpressCard/54 Ports	One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
PCle Mini Card	Two PCI Express Mini Card slots	
Intel 6200 ²⁸	11a/b/g/n wireless, PCle Mini Card, Intel Centrino® Advanced-N 6200, 2x2	
WWAN upg	<i>Some:</i> Wireless WAN upgradable	
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCle Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	
Carrier	<i>Some:</i> AT&T®, contract required with service provider	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCle x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced March 2, 2010

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(CML3-7) March 2010

ThinkPad® X201 Tablet (2985) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz) (GHz)	Memory	Widescreen display	Camera (Mega- pixel)	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Intel vPro	Preload	Avail date
2985-C2U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Entry	250G 5400		Intel 6200 ²⁸	upg	4 vPro	Pro 32	Mar 10
2985-C3U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	upg	8 vPro	Pro 32	Mar 10
2985-C4U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	Gobi Verizon ¹⁶	8 vPro	Pro 32	Mar 10
2985-C5U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Outdoor	2.0 320G 7200		Intel 6200	upg	8 vPro	Pro 32	Mar 10
2985-C6U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Multi	2.0 250G 5400		Intel 6200	upg	8 vPro	Pro 32	Mar 10
2985-C7U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Multi	2.0 320G 7200	DVD±RW	UltraB Intel 6200	upg	8 vPro	Pro 32	Mar 10
2985-EWU	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	Gobi Verizon	8 vPro	Pro 64	Mar 10
2985-EXU	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	Gobi AT&T ²³	8 vPro	Pro 64	Mar 10
2985-EYU	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Multi	2.0 320G 7200	DVD±RW	UltraB Intel 6200	upg	8 vPro	Pro 64	Mar 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-640LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® • Lenovo Edition (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 250GB⁸ (5400 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase										Supports ThinkVantage® technologies		
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz												
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy												
Weight ²													
Case													
Battery - type	Lithium Ion 4-cell or 8-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2												
WWAN upg	Some: Wireless WAN upgradable												
Gobi™ 2000	Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider												
Carrier	Some: AT&T® or Verizon®, contract required with service provider												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for important warranty information

US models announced March 2, 2010; previous models on February 23, 2010

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(CML3-1) March 2010

ThinkPad® X201 Tablet (2985) - TopSeller (Windows 7) - April 2010

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz) (GHz)	Memory	Widescreen display	Camera (Mega- pixel)	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Intel vPro	Preload	Avail date
2985-F2U	i7-620LM	2.00	2.80	2GB	12.1" WXGA	Entry	2.0	160G 7200 DVD±RW	UltraB	Intel 6200 ²⁸	Gobi Verizon ¹⁶	8 vPro Pro 64	Apr 10
2985-F3U	i7-620LM	2.00	2.80	2GB	12.1" WXGA	Outdoor	2.0	160G 7200	Intel 6200	upg	8 vPro Pro 64	Apr 10	
2985-F4U	i7-620LM	2.00	2.80	2GB	12.1" WXGA	Multi	2.0	320G 7200 DVD±RW	UltraB	Intel 6200	upg	8 vPro Pro 64	Apr 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-620LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch		
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (7200 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>										Supports ThinkVantage® technologies		
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)												
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy												
Case	Lithium Ion 8-cell												
Battery - type	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Battery - life ¹⁰													
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2												
WWAN upg	<i>Some:</i> Wireless WAN upgradable												
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider												
Carrier	<i>Some:</i> Verizon®, contract required with service provider												
Modem	56K V.92 ⁹ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for important warranty information
US models announced April 20, 2010

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(CML3-8) April 2010

ThinkPad® X201 Tablet (3093) - Windows 7

Personal Systems Reference (PSREF)

	Type-model	Proc- essor	Base	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁹	Optical in rpm	ThinkPad X200	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue/ Intel Fing vPro	Pre- load	Whorse (W) Gbl (G) GMP (P)	Avail date
⚡	3093-R5U	i7-620LM	2.00	2.80	2GB	12.1" WXGA	Entry	160G	5400		Intel 6200 ²⁸	upg	vPro	Pro 32		Mar 10
⚡	3093-R6U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Outdoor	2.0M	320G 7200		Intel 6200	upg	Yes vPro	Pro 32		Mar 10
	3093-92U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Entry	2.0M	320G 7200	DVD±RW	UltraB	Intel 6200	upg	Yes vPro	Pro 32	W G Mar 10
	3093-93U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Entry		250G 5400		Intel 6200	upg	Yes vPro	Pro 32	W G	Mar 10
	3093-94U	i7-620LM	2.00	2.80	2GB	12.1" WXGA	Entry		250G 5400		Intel 6200	upg	vPro	Pro 32	W G	Mar 10
	3093-95U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Outdoor	2.0M	320G 7200		Intel 6200	upg	Yes vPro	Pro 32	W G	Mar 10
	3093-96U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Multi	2.0M	320G 7200		Intel 6200	upg	Yes vPro	Pro 32	W G	Mar 10

- *These models have a depot repair service 3-year limited warranty*

Positioning Processor	Convertible tablet ultrabortable; one spindle Intel® Core™ i7 processor i7-620LM or i7-640LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• FingerPrint Software (fingerprint models)• ThinkVantage Toolbox• Lenovo SimpleTap (Multi-Touch models)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Corel® WinDVD® (DVD±RW) Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ <ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 and X201 Series• Easily connects to the bottom of the X200 or X201 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">– DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292– DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214– Serial ATA Hard Drive Bay Adapter III 43N3412• Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB Disk 7200 rpm 43N3411 Other features: <ul style="list-style-type: none">• Power button (front)• Stereo speakers (2 watt)• Security key lock, security keyhole, and optional security screw• Analog DB-15 monitor port• DisplayPort (supports single-link DVI-D via cable 45J7915)• Four USB 2.0 ports• Gigabit ethernet port• Microphone in and headphone out• Second battery charger• Requires 65 or 90 watt AC adapter• 1.6 lb; 730g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradeable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>	
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)	
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP) @60Hz; 2048x1536(VGA) @75Hz	
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None	
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy	
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 8-cell <i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr	
Chipset	Mobile Intel QM57 Express Chipset	
Media slice Multicard Reader ExpressCard/54 Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradeable 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole	
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

US models announced February 23, 2010

✂ US models withdrawn effective March 2010

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(CML3-2) February 2010

ThinkPad® X201 Tablet (3093) - Windows 7 (February 2010)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Widescreen Memory display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCle Mini Card WWAN	Carrier	Bat-Blue/ Fing	tery Intel vPro	Whorse (W) Gbl (G) Avail	
3093-21U	i7-620LM	2.00	2.80	2GB	Entry	250G 5400			WWAN upg		4	vPro	Pro 32 G Mar 10	
3093-22U	i7-640LM	2.13	2.93	4GB	Outdoor	320G 7200			WWAN upg	Yes	8	vPro	Pro 32 G Mar 10	
3093-23U	i7-640LM	2.13	2.93	4GB	Multi	320G 7200			WWAN upg	Yes	8	vPro	Pro 32 G Mar 10	
3093-24U	i7-640LM	2.13	2.93	4GB	Entry	320G 7200	DVD±RW	UltraB	Gobi 2000	Verizon ¹⁶	Yes	8	vPro	Pro 32 W Mar 10
3093-25U	i7-640LM	2.13	2.93	4GB	Outdoor	320G 7200			Gobi 2000	Verizon	Yes	8	vPro	Pro 32 W Mar 10
3093-26U	i7-640LM	2.13	2.93	3GB	Multi	128G SSD	DVD±RW	UltraB	WWAN upg	Yes	8	vPro	Pro 32 W Mar 10	
3093-27U	i7-640LM	2.13	2.93	2GB	Entry	320G 7200	DVD±RW	UltraB	WWAN upg	Yes	8	vPro	Pro 32 W G Mar 10	
3093-28U	i7-640LM	2.13	2.93	2GB	Entry	250G 5400			WWAN upg	Yes	8	vPro	Pro 32 W G Mar 10	
3093-42U	i7-620LM	2.00	2.80	2GB	Entry	160G 7200			WWAN upg	Yes	8	vPro	Pro 64 W G Apr 10	
3093-3ZU	i7-620LM	2.00	2.80	2GB	Multi	160G 7200			WWAN upg	Yes	8	vPro	Pro 64 W G Apr 10	
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-620LM or i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® • Lenovo Edition (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) Some: 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports second disk in opt or std X200 UltraBase										Supports ThinkVantage® technologies			
Widescreen display	Entry: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless Outdoor: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS MultiTouch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; Maximum external resolution: 2560x1600 (DP) @60Hz; 2048x1536(VGA) @75Hz										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None													
Dimensions ³	without UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm without UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm 4-cell: from 3.57 lb (1.62kg); 8-cell: from 3.96 lb (1.8kg) Color: black; Material: magnesium alloy													
Weight ² Case	Lithium Ion 4-cell or 8-cell 4-cell: up to 3.5 hr; 8-cell: up to 7.9 hr													
Battery - type														
Battery - life ¹⁰														
Chipset	Mobile Intel QM57 Express Chipset													
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)													
Multicard Reader ExpressCard/54	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)													
Ports	One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
PCle Mini Card	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCle Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
Intel 6200 ²⁸ WWAN upg	Some: Wireless WAN upgradable													
Gobi™ 2000	Some: Wireless WAN, Qualcomm chipset, PCle Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier	Some: Verizon®, contract required with service provider													
Modem	56K V.92 ⁶ modem													
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCle x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	Some: UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

US models announced April 20, 2010; previous models on February 23, 2010

US models withdrawn effective March 2010

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(CML3-3) April 2010

ThinkPad® X201 Tablet (3113) - Onsite (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz) (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 Mini Card	PCIe 802.11	Blue/ Intel Fing vPro	Whorse (W) Gbl (G) Preload GMP (P)	Avail date
3113-92U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M	320G 7200	DVD±RW	UltraB	Intel 6200 ²⁸	Yes vPro Pro 32 W G P	Mar 10
3113-93U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry		250G 5400			Intel 6200	Yes vPro Pro 32 W G P	Mar 10
3113-94U	i7-620LM	2.00	2.80	2GB	12.1" WXGA Entry		250G 5400			Intel 6200	vPro Pro 32 W G P	Mar 10
3113-95U	i7-640LM	2.13	2.93	4GB	12.1" WXGA Outdoor	2.0M	320G 7200			Intel 6200	Yes vPro Pro 32 W G P	Mar 10
3113-96U	i7-640LM	2.13	2.93	4GB	12.1" WXGA Multi	2.0M	320G 7200			Intel 6200	Yes vPro Pro 32 W G P	Mar 10
3113-42U	i7-620LM	2.00	2.80	2GB	12.1" WXGA Entry	2.0M	160G 7200			Intel 6200	Yes vPro Pro 64 W G P	Apr 10
3113-3ZU	i7-620LM	2.00	2.80	2GB	12.1" WXGA Multi	2.0M	160G 7200			Intel 6200	Yes vPro Pro 64 W G P	Apr 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-620LM or i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase										
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus										
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None										
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)										
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy										
Case Battery - type	Lithium Ion 8-cell										
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr										
Chipset	Mobile Intel QM57 Express Chipset										
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)										
Multicard Reader ExpressCard/54 Ports	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable										
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Security Security chip Fingerprint reader											
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										

Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64	
Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Skype™ for Windows • Microsoft Research AutoCollage Touch	
Supports ThinkVantage® technologies	
ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411	
Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g	
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	

See footnotes for important warranty information

US models announced April 20, 2010; previous models on February 23, 2010

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(CML3-4) April 2010

ThinkPad® X201 Tablet (3093) - Education (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Intel vPro	Workhorse (W) Global (G) Avail date
3093-N2U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M	320G 7200	Optional	Opt	Intel 6200 ²⁸	WWAN upg	vPro Pro 32 W Mar 10
3093-N3U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M	320G 7200	Optional	Opt	Intel 6200	WWAN upg	vPro Pro 32 W Mar 10

- **These models have a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-640LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache		Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) • <i>N2U model</i> : Education software - Microsoft® Office OneNote® 2007 (and CD) • <i>N3U model</i> : Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Education software - Adobe Digital School Collection Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available		
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>		
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA) @75Hz		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None		
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)		
Weight ² Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy		
Battery - type	Lithium Ion 8-cell		
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr		
Chipset	Mobile Intel QM57 Express Chipset		
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side)		
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)		
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)		
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2		
WWAN upg	Wireless WAN upgradable		
Modem	56K V.92 ⁶ modem		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	UPEK Fingerprint reader on right base of display, used in tablet or notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
 US models announced February 23, 2010

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ThinkPad® X201 Tablet (3113) - Onsite (Education) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁵	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Intel vPro	Workhorse (W) Global (G)Avail date	
3113-N2U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M	320G 7200	Optional	Opt	Intel 6200 ²⁸	WWAN upg	vPro	Pro 32 W Mar 10
3113-N3U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M	320G 7200	Optional	Opt	Intel 6200	WWAN upg	vPro	Pro 32 W Mar 10
<ul style="list-style-type: none">• These models have a depot repair service 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.													
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (only some listed) • <i>N2U model:</i> Education software - Microsoft® Office OneNote® 2007 (and CD) • <i>N3U model:</i> Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Education software - Adobe Digital School Collection		
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>										Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)												
Camera	Camera on top of screen, 2.0-megapixel, fixed focus												
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP) @60Hz; 2048x1536(VGA) @75Hz												
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy												
Weight ²													
Case													
Battery - type	Lithium Ion 8-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-year - battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available												

See footnotes for important warranty information
 US models announced February 23, 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III 43N3412* in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad X200 UltraBase	43R8781	ann 08/05/08

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Tablet

ThinkPad Digitizer Pen	41U3143	ann 11/14/06
ThinkPad Tablet Tether (3-pack)	41U4820	ann 11/14/06

Batteries

ThinkPad Battery 12 (4-cell)	43R9256	ann 09/23/08
ThinkPad Battery 12++ (8-cell)	43R9257	ann 09/23/08
ThinkPad External Battery Charger ⁴⁷	40Y7625	ann 09/20/05

⁴⁷ Only supports *ThinkPad Battery 12 (4-cell)* 43R9256

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• BlackBerry charge tip (L8a)	41R4478	ann 12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07

More information at www.lenovopowertips.com

Carrying Cases

X200 Tablet:

ThinkPad X200 Tablet Sleeve	43R9115	ann 09/23/08
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Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann 05/13/08
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Up to 15.4" widescreen models:

Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann 05/05/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X301



Lenovo ThinkPad X301



Lenovo ThinkPad X301



Lenovo ThinkPad X301



Lenovo ThinkPad X301



USB Port Replicator with Digital Video
45K1610

ThinkPad® X301 (2776) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Camera	Disk SATA GB ³ RPM	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Preload	Avail date
2776-3AU	SU9600	1.60	2GB	13.3" WXGA+	Cam	250GB 5400	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	6 XP Pro	Oct 09
2776-3BU	SU9600	1.60	2GB	13.3" WXGA+	Cam	80GB SSD	DVD±RW	❖ Intel 5100	WWAN upg	None	Yes	6 XP Pro	Oct 09
2776-3CU	SU9600	1.60	4GB	13.3" WXGA+	Cam	128GB SSD	DVD±RW	❖ Intel 5100	WWAN upg	None	Yes	6 XP Pro	Oct 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9600 with ultra low voltage, dual-core , Intel HD Boost, 800MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Fingerprint Software (fingerprint models)• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Lenovo System Toolbox• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
EIDE DVD±RW Option Bay Serial ATA disk	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in Modular bay for devices (DVD burner, battery), 7mm high <i>Some:</i> 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s <i>Some:</i> 250GB (5400 rpm) / SATA 1.5Gb/s, Active Protection System™ <i>All:</i> 1.8" wide, 8mm high, removable, upgradable, shock mounted storage	
Widescreen display Camera	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536 @ 75Hz (VGA, DisplayPort)	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)	
TrackPoint® Touch pad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, supports multi-touch function	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)	
Weight ² Case color Case material	Black <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Option Bay 3-cell battery (for two batteries) <i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)	
ExpressCard Multicard reader Ports	None None Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
Wireless antenna Mini PCI Express Intel 5100 ²⁸ WWAN upg Turbo Memory UWB Modem	UltraConnect™ II Antenna / on-off switch for all wireless radios Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None None (use optional USB-based modem)	
Bluetooth™ Ethernet Intel AMT Audio support	Bluetooth 2.1 wireless, USB 2.0 interface via ICH, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies
65-watt (GMA graphics) AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 41C9176
ThinkPlus 4-year LOR 9x5 NBD 41C9177
ThinkPlus 5-year LOR 9x5 NBD 41C9179
ThinkPlus 4-year P&L P/U Depot 41C9178
ThinkPlus 5-year P&L P/U Depot 41C9180
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced October 22, 2009

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(KOD2-7) October 2009

ThinkPad® X301 (2776) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Low Voltage processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ² RPM	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Battery Blue/ Fing cells	Preload	Avail date
2776-3DU	SU9600	1.60	4GB	13.3" WXGA+	Cam	128GB SSD	DVD±RW	Intel 5100 ²⁸	AT&T ²³	None	Yes	6 Pro 64	Oct 09
2776-3NU	SU9600	1.60	2GB	13.3" WXGA+	Cam	128GB SSD	DVD±RW	WiMAX	WWAN upg	None	Yes	6 Pro 32	Nov 09
2776-3PU	SU9600	1.60	2GB	13.3" WXGA+	Cam	128GB SSD	DVD±RW	Intel 5100	Verizon ¹⁶	None	Yes	6 Pro 32	Nov 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Thin and light; two spindles Intel® Core™ 2 Duo processor SU9600 with ultra low voltage, dual-core, Intel HD Boost, 800MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
EIDE DVD±RW Option Bay Serial ATA disk	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in Modular bay for devices (DVD burner, battery), 7mm high 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, shock mounted storage												
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, supports multi-touch function												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)												
Weight ²													
Case color	Black												
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Ion 6-cell , supports optional Option Bay 3-cell battery (for two batteries)												
Battery - life ¹⁰	<i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)												
ExpressCard	None												
Multicard reader	None												
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies		
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios												
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable												
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)												
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)												
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Qualcomm chipset, Mini PCIe adapter and SIM, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon												
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T												
Turbo Memory	None												
UWB	None												
Modem	None (use optional USB-based modem)												
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

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US models announced November 3, 2009; previous model on October 22, 2009

(KOD2-8) November 2009

Memory**X300:**

1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0502	ann	03/17/09
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06
2GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0548	ann	03/17/09

X301:

1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann	03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann	03/17/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

Storage and removable storage**X301:**

1.8" 250GB Disk SATA 3.0Gb/s (5400 rpm)	43N3418	ann	06/23/09
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All:

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann	06/23/09

USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)**X301 WWAN upgradable models:**

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann	08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Batteries

ThinkPad Battery 49 (3-cell)	43R1965	ann	02/26/08
ThinkPad Battery 49+ (6-cell)	43R1967	ann	02/26/08
ThinkPad Battery 50 (3-cell, bay)	43R1966	ann	02/26/08
ThinkPad External Battery Charger	40Y7625	ann	09/20/05

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann	01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases**Up to 13.3" widescreen models:**

ThinkPad Ultraportable Case	41U5062	ann	05/13/08
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶**X301:**

Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08

All:

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Partial list of Lenovo® ThinkPlus Services²² for ThinkPad notebooksFor more information see: http://www.lenovo.com/services_warranty/us/en/index.html

<p>ThinkPlus service upgrade options for ThinkPad W/X series</p> <p>ThinkPad X100e notebook with 1-year Mail-In warranty</p> <table> <tr><td>2-year Mail-In repair service</td><td>78Y1519</td></tr> <tr><td>3-year Mail-In repair service</td><td>78Y1520</td></tr> <tr><td>1-year LOR²⁴ 9x5 Next Business Day</td><td>78Y1517</td></tr> <tr><td>2-year LOR 9x5 Next Business Day</td><td>78Y1521</td></tr> <tr><td>3-year LOR 9x5 Next Business Day</td><td>78Y1522</td></tr> </table> <p>ThinkPad X100e notebook with 1-year Depot warranty</p> <table> <tr><td>2-year parts and labor depot repair service</td><td>41C9169</td></tr> <tr><td>3-year parts and labor depot repair service</td><td>41C9170</td></tr> <tr><td>1-year LOR 9x5 Next Business Day</td><td>41C9166</td></tr> <tr><td>2-year LOR 9x5 Next Business Day</td><td>41C9167</td></tr> <tr><td>3-year LOR 9x5 Next Business Day</td><td>41C9168</td></tr> </table> <p>ThinkPad X series notebook with 1-year Depot warranty</p> <table> <tr><td>2-year parts and labor depot repair service</td><td>41C9169</td></tr> <tr><td>3-year parts and labor depot repair service</td><td>41C9170</td></tr> <tr><td>4-year parts and labor depot repair service</td><td>41C9172</td></tr> <tr><td>5-year parts and labor depot repair service</td><td>41C9174</td></tr> <tr><td>1-year LOR 9x5 Next Business Day</td><td>41C9166</td></tr> <tr><td>2-year LOR 9x5 Next Business Day</td><td>41C9167</td></tr> <tr><td>3-year LOR 9x5 Next Business Day</td><td>41C9168</td></tr> <tr><td>4-year LOR 9x5 Next Business Day</td><td>41C9171</td></tr> <tr><td>5-year LOR 9x5 Next Business Day</td><td>41C9173</td></tr> </table> <p>ThinkPad W/X series notebook with 3-year Depot warranty</p> <table> <tr><td>4-year parts and labor depot repair service</td><td>41C9178</td></tr> <tr><td>5-year parts and labor depot repair service</td><td>41C9180</td></tr> <tr><td>3-year LOR 9x5 Next Business Day</td><td>41C9176</td></tr> <tr><td>4-year LOR 9x5 Next Business Day</td><td>41C9177</td></tr> <tr><td>5-year LOR 9x5 Next Business Day</td><td>41C9179</td></tr> </table> <p>ThinkPad W/X series notebook with 3-year Onsite warranty</p> <table> <tr><td>4-year LOR 9x5 Next Business Day</td><td>12X5630</td></tr> <tr><td>5-year LOR 9x5 Next Business Day</td><td>43R2162</td></tr> </table>	2-year Mail-In repair service	78Y1519	3-year Mail-In repair service	78Y1520	1-year LOR ²⁴ 9x5 Next Business Day	78Y1517	2-year LOR 9x5 Next Business Day	78Y1521	3-year LOR 9x5 Next Business Day	78Y1522	2-year parts and labor depot repair service	41C9169	3-year parts and labor depot repair service	41C9170	1-year LOR 9x5 Next Business Day	41C9166	2-year LOR 9x5 Next Business Day	41C9167	3-year LOR 9x5 Next Business Day	41C9168	2-year parts and labor depot repair service	41C9169	3-year parts and labor depot repair service	41C9170	4-year parts and labor depot repair service	41C9172	5-year parts and labor depot repair service	41C9174	1-year LOR 9x5 Next Business Day	41C9166	2-year LOR 9x5 Next Business Day	41C9167	3-year LOR 9x5 Next Business Day	41C9168	4-year LOR 9x5 Next Business Day	41C9171	5-year LOR 9x5 Next Business Day	41C9173	4-year parts and labor depot repair service	41C9178	5-year parts and labor depot repair service	41C9180	3-year LOR 9x5 Next Business Day	41C9176	4-year LOR 9x5 Next Business Day	41C9177	5-year LOR 9x5 Next Business Day	41C9179	4-year LOR 9x5 Next Business Day	12X5630	5-year LOR 9x5 Next Business Day	43R2162	<p>ThinkPlus Secure Business</p> <p>Lenovo Online Data Backup</p> <ul style="list-style-type: none"> Secure offsite data storage 256-bit Advanced Encryption System Data recovery or access in case of an unforeseen event Automatic, remote management Choose which business critical data to back up <table> <tr><td>1-year Lenovo Online Data Backup - 10GB</td><td>51J0787</td></tr> <tr><td>1-year Lenovo Online Data Backup - 25GB</td><td>51J0795</td></tr> <tr><td>1-year Lenovo Online Data Backup - 50GB</td><td>45K5849</td></tr> <tr><td>1-year Lenovo Online Data Backup - Unlimited</td><td>45K5870</td></tr> </table> <p>ThinkPad notebook with 1-year Depot warranty</p> <table> <tr><td>1-year Secure Business</td><td>55Y2380</td></tr> <tr><td>• 1-year Lenovo Onsite Repair service upgrade</td><td></td></tr> <tr><td>• 1-year ThinkPad Protection</td><td></td></tr> <tr><td>• 1-year 50GB Lenovo Online Data Backup</td><td></td></tr> <tr><td>3-year Secure Business</td><td>55Y2381</td></tr> <tr><td>• 3-year Lenovo Onsite Repair service upgrade</td><td></td></tr> <tr><td>• 3-year ThinkPad Protection</td><td></td></tr> <tr><td>• 3-year 50GB Lenovo Online Data Backup</td><td></td></tr> </table> <p>ThinkPad notebook with 3-year Depot warranty</p> <table> <tr><td>3-year Secure Business</td><td>45K5893</td></tr> <tr><td>• 3-year Lenovo Onsite Repair service upgrade</td><td></td></tr> <tr><td>• 3-year ThinkPad Protection</td><td></td></tr> <tr><td>• 3-year 50GB Lenovo Online Data Backup</td><td></td></tr> </table>	1-year Lenovo Online Data Backup - 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1-year Lenovo Online Data Backup - 50GB	45K5849																																																																																				
1-year Lenovo Online Data Backup - Unlimited	45K5870																																																																																				
1-year Secure Business	55Y2380																																																																																				
• 1-year Lenovo Onsite Repair service upgrade																																																																																					
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Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

Footnotes:

¹ Power management, including Intel® SpeedStep® Technology, reduces processor speed when in battery mode.

² **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.

³ **Thinness** may vary at certain points on the system.

⁴ **Wireless capability:** Requires compatible wireless-enabled options sold separately.

⁵ **TAA:** ThinkPad notebook is compliant with the U.S. Federal Government's country-of-origin requirements prescribed in 48 C.F.R. Subpart 25.4; Trade Act Agreement (TAA) model.

⁶ **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.

⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On ThinkPad systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.

⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.

⁹ **CD/DVD drive speeds** list maximum rates; rates are variable and are often less than the maximum.

¹⁰ **Battery:** These model numbers achieved the battery life based on MobileMark® 2007 during testing. For the ThinkPad X300, battery life is based on Business Winstone Battery Mark 2002. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

¹¹ **External monitor:** This system supports a maximum of two external monitors. The integrated display(s) must be disabled to support two external monitors.

¹² **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

¹³ **Internet access not included.**

¹⁴ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

¹⁶ **Activating Verizon Wireless Service:** Lenovo customers will be contacted after purchase to activate service; requires separate agreement with Verizon Wireless and is subject to the Customer Agreement, Calling Plan, and credit approval. Service, airtime, and early termination charges may apply. Verizon Wireless, not Lenovo, is solely responsible for service. Service not available in all areas; purchaser is responsible for verifying that service is available for the intended location before purchasing a computer equipped with WAN card. Network details, coverage limitations, and maps at www.verizonwireless.com.

¹⁷ **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

¹⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For ThinkPad notebooks with EasyServ or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.

¹⁹ **EasyServ depot repair service:** In the United States call 1-800-426-7378. The customer may be asked certain diagnostic questions before a courier is sent. Your ThinkPad purchase includes this depot repair service, available in the U.S. during the limited warranty period.

²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.

²¹ **For combination drives**, maximum possible speeds only are given in the following order: CD write, CD rewrite, CD read, DVD read.

²² **ThinkPlus Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. For ThinkPad notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

²³ **Activating AT&T Wireless Service:** Requires separate agreement with AT&T, subject to service agreement, rate plan and coverage maps. AT&T, not Lenovo, is solely responsible for service. Coverage not available in all areas; AT&T BroadbandConnect available in select metropolitan markets. Special credit and tenure restrictions and additional charges may apply to international roaming. A network connection, third-party software, additional hardware, and/or subscription to a third-party service may be required for certain solutions/applications. Additional restrictions apply, including early termination fee; see www.wireless.att.com for details. To activate call Lenovo Wireless Activation Hot Line at 1-877-299-4710.

²⁴ **Limited onsite service systems** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges. Lenovo onsite repair (LOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day (NBD) response time.

²⁶ **Full-size keyboard:** As defined by ISO/IEC 15412.

²⁷ **Based on IEEE 802.11a and 802.11b.** A customer can not upgrade to a different wireless Mini PCI adapter due to FCC regulations. Security screws prevent removal of this adapter. This wireless LAN product has been designed to permit legal operation world-wide in regions which it is approved. This product has been tested and certified to be interoperable by the Wireless Ethernet Compatibility Alliance and is authorized to carry the Wi-Fi logo.

²⁸ **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.

³⁰ **Measures only maximum** data transfer rate, not application performance. Many factors affect application performance.

³² **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.

³⁶ **Wireless upgradable** allows the system to be wireless-enabled with an optional wireless Mini PCI or Mini PCI Express card. Designed to operate only with Lenovo options.

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Personal Systems Reference Lenovo® ThinkPad® Edge Series and SL Series Notebooks

May 2010 - Version 377



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ThinkPad®



Lenovo® ThinkPad Edge 13"



Lenovo ThinkPad Edge 13"
(Glossy black model)



Lenovo ThinkPad Edge 13"
(Glossy red model)



ThinkPad Battery 73+ (6-cell) 57Y4565
ThinkPad Battery 73 (4-cell) 57Y4564



USB 2.0 Portable DVD Burner
43N3264



Lenovo ThinkPad Edge 13"

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Top color	Blue-tooth	Battery cells	Preload	Avail date
0196-24U	SU7300	1.30	3GB	13.3" HD	0.3M	GMA	320G 7200	Intel 1000	None	Matte black	Blue	6	Pro 32	Jan 10
0196-4YU	SU7300	1.30	3GB	13.3" HD	0.3M	GMA	320G 7200	Intel 1000	None	Glossy black	Blue	6	Pro 32	Jan 10
0196-5DU	SU7300	1.30	2GB	13.3" HD	0.3M	GMA	250G 5400	Intel 1000	None	Glossy red		6	Pro 32	Apr 10
0196-5EU	SU7300	1.30	3GB	13.3" HD	0.3M	GMA	250G 5400	WiMAX	None	Matte black	Blue	6	Pro 32	Apr 10
0196-5FU	SU7300	1.30	2GB	13.3" HD	0.3M	GMA	250G 5400	Intel 1000	None	Matte black		6	Home P 64	Apr 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; one spindle Intel® Core™ 2 Duo processor SU7300 with ultra low voltage, dual-core, 800MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
Optical drive SATA disk	None (use optional USB Portable DVD Burner 43N3264) 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 1.5Gb/s or 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™		
Widescreen display Camera	13.3" (338mm) HD (1366x768) color, VibrantView (glossy), LED backlight , 200 nits, 16:9 aspect ratio, 400:1 contrast ratio Camera on top of screen, 0.3-megapixel, low light sensitive		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution:</i> 2048x1536@75Hz		
Keyboard TrackPoint® Touch pad	6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touch pad below keyboard, Tap Zones, multi-touch		
ThinkLight™	None		
Dimensions ³ Weight ² Case color	13.3W" (WxDxH): 12.7" x 9.0" x 1.0"; 322 x 228mm x 25.4mm (excluding battery bump) <i>4-cell:</i> starting at 3.59 lb (1.63kg); <i>6-cell:</i> starting at 3.81 lb (1.73kg) Matte black (top), glossy black (top), or glossy red (top), trimmed with a thin silver band (side); black bottom		Supports ThinkVantage® technologies
Case material Battery - type ³⁷ Battery - life ¹⁰	Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 5.3 hr; <i>6-cell:</i> up to 8.0 hr		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M I/O Controller Hub		65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ExpressCard Smart Card Read Multicard Reader Ports	None None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, XD) Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card Intel 1000 WiMAX	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX		ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	None None <i>Some:</i> Bluetooth 2.1 wireless Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Conexant® CX20582 codec / stereo speakers, 1 watt x 2/ mono microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole		
Security Security chip Fingerprint reader	None None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information

US models announced April 6, 2010; previous models on January 5, 2010

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ThinkPad® Edge 13" 0197 (AMD) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Top color	Blue- tooth	Battery cells	Preload	Avail date
0197-26U	L325	1.50	2GB	13.3" HD	0.3M	HD 3200	250G 5400	11b/g/n	None	Matte black	None	4	Home P 64	Jan 10
0197-27U	L325	1.50	3GB	13.3" HD	0.3M	HD 3200	250G 5400	11b/g/n	None	Matte black	None	6	Pro 32	Jan 10
0197-6XU	L325	1.50	3GB	13.3" HD	0.3M	HD 3200	250G 5400	11b/g/n	None	Glossy black	None	6	Pro 32	Jan 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; one spindle AMD® Athlon™ Neo X2 Dual-Core processor L325 with dual-core , virtualization technology, integrated DDR2 memory controller, and 1MB L2 cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Home Premium 64 - <i>Some:</i> Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Lenovo Online Data Backup • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Memory	2GB or 3GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
Optical drive SATA disk	None (use optional USB Portable DVD Burner 43N3264) 250GB ⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™		
Widescreen display	13.3" (338mm) HD (1366x768) color, VibrantView (glossy), LED backlight , 200 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	Camera on top of screen, 0.3-megapixel, low light sensitive		
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution: 2456x1536@60Hz</i>		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, multi-touch		
ThinkLight™	None		
Dimensions ³	13.3W" (WxDxH): 12.7" x 9.0" x 1.0"; 322 x 228mm x 25.4mm (excluding battery bump)		
Weight ²	4-cell: starting at 3.61 lb (1.64kg); 6-cell: starting at 3.83 lb (1.74kg)		
Case color	Matte black (top) or glossy black (top), trimmed with a thin silver band (side); black bottom		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type ³⁷	Lithium Ion 4-cell or 6-cell		
Battery - life ¹⁰	L325 models with 4-cell: up to 3.3 hr; 6-cell: up to 5.0 hr		
Chipset	AMD M780G Chipset , SB710 south bridge		
ExpressCard	None		
Smart Card Read	None		
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, XD)		
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® RTL8191SE		
WWAN upg	None		
Modem	None		
Bluetooth™	None		
Ethernet	Realtek RTL8111DL Gigabit Network Connection		
Audio support	High Definition (HD) Audio, Conexant® CX20582 codec / stereo speakers, 1 watt x 2/ mono microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	None		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced January 5, 2010

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Memory*0196 with Intel processors:*

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

0197 with AMD processors:

1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0502	ann	03/17/09
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06
2GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0548	ann	03/17/09

Storage and removable storage

USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)*Olny WWAN upgradable models:*

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann	01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann	01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann	11/25/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Batteries³⁷

ThinkPad Battery 73 (4-cell)	57Y4564	ann	01/05/10
ThinkPad Battery 73+ (6-cell)	57Y4565	ann	01/05/10
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* or the adapter provided with the system.More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters*Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493*

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com**Carrying Cases**

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad Edge 14"



Lenovo ThinkPad Edge 14"
(Glossy black model)



Lenovo ThinkPad Edge 14"



USB Port Replicator with Digital Video
45K1610



Lenovo ThinkPad Edge 14"

ThinkPad® Edge 14" 0578 (Intel) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Avail date
0578-23U	i3-350M	2.26	3GB	14.0" HD	320G 7200	Intel 6200 ²⁸			Matte black			6	Pro 64	Mar 10
0578-25U	i3-330M	2.13	4GB	14.0" HD	250G 5400	11b/g/n			Matte black			4	Home P 64	Mar 10
0578-27U	i3-330M	2.13	2GB	14.0" HD	250G 5400	Intel 1000			Glossy black			6	Pro 32	Mar 10
0578-29U	i3-330M	2.13	2GB	14.0" HD	250G 5400	Intel 1000			Glossy black			6	Home P 64	Mar 10
0578-2AU	i3-330M	2.13	4GB	14.0" HD	250G 5400	Intel 1000	Gobi 2000	AT&T ²³	Glossy black		Blue	6	Pro 64	Mar 10
0578-2BU	i3-330M	2.13	4GB	14.0" HD	320G 7200	Intel 1000	Gobi 2000	Verizon ¹⁶	Glossy black		Blue	6	Pro 64	Mar 10
0578-65U	i3-330M	2.13	4GB	14.0" HD	320G 7200	Intel 1000			Glossy black	Finger	Blue	6	Pro 64	Mar 10
0578-66U	i3-330M	2.13	3GB	14.0" HD	320G 7200	Intel 1000			Glossy red		Blue	6	Home P 64	Mar 10
0578-28U	Cel P4500	1.86	2GB	14.0" HD	250G 5400	Intel 1000			Glossy black			6	Home P 64	Apr 10
0578-64U	Cel P4500	1.86	2GB	14.0" HD	250G 5400	Intel 1000			Glossy black			6	Pro 32	Apr 10
0578-7ZU	Cel P4500	1.86	2GB	14.0" HD	250G 5400	Intel 1000			Matte black			6	Home P 64	Apr 10
0578-82U	i3-330M	2.13	2GB	14.0" HD	250G 5400	Intel 1000			Matte black			6	Pro 32	Apr 10
0578-83U	i3-330M	2.13	3GB	14.0" HD	250G 5400	Intel 1000			Glossy red		Blue	6	Pro 32	Apr 10
0578-84U	i3-330M	2.13	3GB	14.0" HD	250G 5400	Intel 1000	Gobi 2000	AT&T	Glossy black		Blue	6	Pro 32	Apr 10
0578-85U	i3-330M	2.13	2GB	14.0" HD	250G 5400	Intel 1000			Matte black			6	Home P 64	Apr 10
0578-86U	i3-330M	2.13	4GB	14.0" HD	320G 7200	Intel 1000			Matte black		Blue	6	Pro 64	Apr 10
0578-C5U	i3-350M	2.26	2GB	14.0" HD	320G 7200	Intel 1000			Matte black		Blue	6	Pro 64	Apr 10
0578-C6U	i3-350M	2.26	4GB	14.0" HD	500G 7200	Intel 1000			Glossy black		Blue	6	Pro 64	Apr 10
Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles Intel® Celeron® Processor P4500 with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), and 2MB cache Intel Core™ i3 processor i3-330M or i3-350M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache									Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available									Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch				
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 250GB⁸ (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	14.0" (355mm) HD (1366x768) color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution:</i> 2048x1536@75Hz; 1920x1080 (HDMI port)													
Keyboard TrackPoint® Touch pad	6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touch pad below keyboard, Tap Zones, multi-touch													
ThinkLight™	None													
Dimensions ³ Weight ² Case color	14.0W" (WxDxH): 13.54" x 9.17" x 1.25-1.46"; 344 x 233mm x 31.8-37.0mm <i>4-cell:</i> from 4.72 lb (2.14kg); <i>6-cell:</i> from 4.9 lb (2.22kg); <i>9-cell:</i> from 5.29 lb (2.40kg) Matte black (top), glossy black (top), or glossy red (top), trimmed with a thin silver band (side); black bottom Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Case material Battery - type ³⁷ Battery - life ¹⁰	Lithium Ion 4-cell or 6-cell <i>4-cell:</i> up to 2.9 hr; <i>6-cell:</i> up to 4.5 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One ExpressCard/34 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)													
PCIe Mini Card 11b/g/n Intel 1000 Intel 6200 ²⁸ Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T® or Verizon®, contract required with service provider None <i>Some:</i> Bluetooth 2.1 wireless Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269 codec / stereo speakers, 1.5 watt x 2/ mono digital microphone, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													
										Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

US models announced April 13, 2010; previous models on March 23 or April 6 2010

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ThinkPad® Edge 14" 0578 (Intel) - TopSeller (Windows 7) - May 2010

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date					
0578-9KU	i3-350M	2.26	4GB	14.0" HD	500G 5400	Intel 1000	None	None	Matte black	None		6	Home P 64	May 10					
0578-DGU	i3-350M	2.26	2GB	14.0" HD	320G 7200	Intel 1000	None	None	Glossy red	None	Blue	6	Pro 64	May 10					
0578-DHU	i3-350M	2.26	4GB	14.0" HD	500G 5400	Intel 1000	None	None	Glossy red	None	Blue	6	Pro 64	May 10					
Positioning Processor										Sophisticated design with quality, durability and reliability for SMB customers; two spindles					Preloaded operating system ²⁰				
										Intel® Core™ i3 processor i3-350M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache					- Some: Genuine Windows® 7 Home Premium 64				
															- Some: Genuine Windows 7 Professional 64				
Memory										2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available					Preloaded applications ¹⁴ (only some listed)				
															• Rescue and Recovery™				
															• Access Connections™				
															• Password Manager				
															• ThinkVantage Power Manager				
															• ThinkVantage System Update				
															• ThinkVantage Toolbox				
															• Norton™ Internet Security 2009 (30 days of virus definitions)				
															• Adobe® Reader®				
															• Adobe Flash® Player				
															• Skype™ for Windows				
															• Microsoft® Office 2007 Trial (60-day)				
															• Microsoft Research AutoCollage Touch				
SATA DVD±RW SATA disk										DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 320GB ⁸ (7200 rpm) or 500GB (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™									
Widescreen display										14.0" (355mm) HD (1366x768) color, VibrantView (glossy), LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio									
Camera										Camera on top of screen, 2.0-megapixel, fixed focus									
Integrated graphics										Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; Max external resolution: 2048x1536@75Hz; 1920x1080 (HDMI port)									
Keyboard										6-row, spill-resistant, multimedia Fn keys									
TrackPoint®										TrackPoint® pointing device, Internet Scroll Bar ¹³									
Touch pad										UltraNav™, wide touch pad below keyboard, Tap Zones, multi-touch									
ThinkLight™										None					Supports ThinkVantage® technologies				
Dimensions ³										14.0W" (WxDxH): 13.54" x 9.17" x 1.25-1.46"; 344 x 233mm x 31.8-37.0mm					65-watt AC adapter				
Weight ²										4-cell: from 4.72 lb (2.14kg); 6-cell: from 4.9 lb (2.22kg); 9-cell: from 5.29 lb (2.40kg)					EPEAT™ Gold rating				
Case color										Matte black (top) or glossy red (top), trimmed with a thin silver band (side); black bottom					ENERGY STAR® 5.0-compliant				
Case material										Acrylonitrile-Butadiene-Styrene (ABS) plastic					RoHS-compliant				
Battery - type ³⁷										Lithium Ion 6-cell					International Warranty Service ¹⁷				
Battery - life ¹⁰										4-cell: up to 2.9 hr; 6-cell: up to 4.5 hr					24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Chipset										Mobile Intel HM55 Express Chipset									
ExpressCard/34										One ExpressCard/34									
Multicard Reader										7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)					ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968				
Ports										Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)					ThinkPlus 2-year LOR 9x5 NBD 45K5969				
PCIe Mini Card										Two PCI Express Mini Card slots					ThinkPlus 3-year LOR 9x5 NBD 45K5970				
Intel 1000										11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2					ThinkPlus 4-year LOR 9x5 NBD 45K5973				
WWAN upg										None					ThinkPlus 2-year P&L P/U Depot 45K5971				
Modem										None					ThinkPlus 3-year P&L P/U Depot 45K5972				
Bluetooth™										Some: Bluetooth 2.1 wireless					ThinkPlus 4-year P&L P/U Depot 45K5974				
Ethernet										Realtek® RTL8111DL Gigabit Network Connection					Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Intel AMT										None									
Audio support										High Definition (HD) Audio, Realtek ALC269 codec / stereo speakers, 1.5 watt x 2/ mono digital microphone, combo audio/mic jack									
Security										Power-on password, hard disk password, supervisor password, security keyhole									
Security chip										None									
Fingerprint reader										None									
Limited warranty ¹²										1-year - depot repair service / service upgrades ²² available									

See footnotes for important warranty information
US models announced May 4, 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

Storage and removable storage

USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann	01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann	01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
UltraSlim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann	11/25/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Batteries³⁷

ThinkPad Battery 25 (4-cell)	51J0498	ann	10/22/09
ThinkPad Battery 25+ (6-cell)	51J0499	ann	10/22/09
ThinkPad Battery 25++ (9-cell)	51J0500	ann	10/22/09
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputingThinkPad 65W AC Adapter⁴⁵ 40Y7696 ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.ThinkPad 90W AC Adapter 40Y7659 ann 09/20/05
90W Ultraslim AC/DC Combo Adapter 41R4493 ann 09/22/09More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com**Carrying Cases**

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security
Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad Edge 15"



Lenovo ThinkPad Edge 15"
(Glossy black model)



Lenovo ThinkPad Edge 15"



Lenovo ThinkPad Edge 15"
(Glossy red model)



Lenovo ThinkPad Edge 15"

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Screen type	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Finger print reader	Bat- tery tooth cells	Preload	Avail date	
0301-23U	i3-350M	2.26	4GB	15.6" HD	Glossy	320G 7200	Intel 6200 ²⁸			Matte black		6	Pro 64	Mar 10	
0301-25U	i3-330M	2.13	4GB	15.6" HD	Glossy	250G 5400	11b/g/n			Matte black		4	Home P	Mar 10	
0301-26U	i3-330M	2.13	2GB	15.6" HD		250G 5400	Intel 1000			Glossy black		6	Pro 32	Mar 10	
0301-27U	i3-330M	2.13	2GB	15.6" HD		320G 7200	Intel 1000	Gobi 2000	AT&T ²³	Glossy black	Blue	6	Pro 32	Mar 10	
0301-29U	i3-330M	2.13	2GB	15.6" HD	Glossy	250G 5400	Intel 1000			Glossy black		6	Home P	Mar 10	
0301-2AU	i3-330M	2.13	4GB	15.6" HD		250G 5400	Intel 1000	Gobi 2000	AT&T	Glossy black	Blue	6	Pro 64	Mar 10	
0301-2BU	i3-330M	2.13	4GB	15.6" HD		250G 5400	Intel 1000	Gobi 2000	Verizon ¹⁶	Glossy black	Blue	6	Pro 64	Mar 10	
0301-5PU	i3-330M	2.13	2GB	15.6" HD		320G 7200	Intel 1000	Gobi 2000	Verizon	Glossy black	Finger	Blue	6	Pro 32	Mar 10
0301-5QU	i3-330M	2.13	2GB	15.6" HD		250G 5400	Intel 1000			Glossy red		Blue	6	Pro 32	Mar 10
0301-5RU	i3-330M	2.13	3GB	15.6" HD		320G 7200	Intel 1000			Glossy red		Blue	6	Home P	Mar 10
0301-5SU	i3-330M	2.13	4GB	15.6" HD		320G 7200	Intel 1000			Glossy black	Finger	Blue	6	Pro 64	Mar 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles Intel® Core™ i3 processor i3-330M or i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Home Premium 64 - <i>Some:</i> Genuine Windows 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™		
Widescreen display	<i>Some:</i> 15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (395mm) HD (1366x768) color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution:</i> 2048x1536@75Hz; 1920x1080 (HDMI port)		
Keyboard TrackPoint® Touch pad	6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touch pad below keyboard, Tap Zones, multi-touch		
ThinkLight™	None		
Dimensions ³ Weight ² Case color	<i>15.6W" (WxDxH):</i> 14.96" x 9.72" x 1.27-1.48"; 380 x 247mm x 32.3-37.5mm <i>4-cell:</i> from 5.32 lb (2.42kg); <i>6-cell:</i> from 5.50 lb (2.50kg); <i>9-cell:</i> from 5.89 lb (2.67kg) Matte black (top), glossy black (top), or glossy red (top), trimmed with a thin silver band (side); black bottom		
Case material Battery - type ³⁷ Battery - life ¹⁰	Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell or 6-cell <i>4-cell:</i> up to 2.9 hr; <i>6-cell:</i> up to 4.5 hr		
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One ExpressCard/34 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card 11b/g/n Intel 1000 Intel 6200 ²⁸ Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider		
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T® or Verizon®, contract required with service provider None <i>Some:</i> Bluetooth 2.1 wireless Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269 codec / stereo speakers, 1.5 watt x 2/ mono digital microphone, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced March 23, 2010

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Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Screen type	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Finger-print reader	Blue-tooth	tery cells	Preload	Avail date
0301-28U	Cel P4500	1.86		2GB	15.6" HD	Glossy	250G 5400	Intel 1000			Glossy black			6	Home P 64	Apr 10
0301-5NU	Cel P4500	1.86		2GB	15.6" HD	Glossy	250G 5400	Intel 1000			Matte black			6	Home P 64	Apr 10
0301-8GU	i3-330M	2.13		2GB	15.6" HD		250G 5400	Intel 1000			Matte black			6	Pro 32	Apr 10
0301-8HU	i3-330M	2.13		4GB	15.6" HD		320G 7200	WiMAX			Matte black	Finger	Blue	6	Pro 64	Apr 10
0301-8JU	i3-330M	2.13		2GB	15.6" HD	Glossy	250G 5400	Intel 1000			Matte black			6	Home P 64	Apr 10
0301-8KU	i3-330M	2.13		4GB	15.6" HD		320G 7200	Intel 1000			Matte black		Blue	6	Pro 64	Apr 10
0301-9AU	i3-330M	2.13		2GB	15.6" HD		250G 5400	Intel 1000	Gobi	AT&T ²³	Glossy black			6	Pro 32	Apr 10
0301-9CU	i3-350M	2.26		2GB	15.6" HD		320G 7200	Intel 1000			Matte black		Blue	6	Pro 64	Apr 10
0301-9DU	i3-350M	2.26		4GB	15.6" HD		500G 7200	Intel 1000			Glossy black		Blue	6	Pro 64	Apr 10
0301-89U	i5-430M	2.26	2.53	4GB	15.6" HD		500G 7200	Intel 1000			Glossy black	Finger	Blue	6	Pro 64	May 10
0301-8AU	i3-350M	2.26		2GB	15.6" HD	Glossy	250G 5400	Intel 1000			Matte black			4	Home P 64	May 10
0301-8BU	i3-350M	2.26		4GB	15.6" HD		500G 7200	Intel 1000			Glossy black	Finger		6	Pro 64	May 10
• These small and medium business (SMB) models are part of the US TopSeller™ Program																
Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles Intel® Celeron® Processor P4500 with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), and 2MB cache or Intel Core™ i3 processor i3-330M or i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-430M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch				
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Supports ThinkVantage® technologies				
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 250GB⁸ (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™															
Widescreen display	<i>Some:</i> 15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (395mm) HD (1366x768) color , VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio															
Camera	Camera on top of screen, 2.0-megapixel, fixed focus															
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution:</i> 2048x1536@75Hz; 1920x1080 (HDMI port)															
Keyboard	6-row, spill-resistant, multimedia Fn keys															
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³															
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, multi-touch															
ThinkLight™	None															
Dimensions ³	15.6W" (WxDxH): 14.96" x 9.72" x 1.27-1.48"; 380 x 247mm x 32.3-37.5mm															
Weight ²	4-cell: from 5.32 lb (2.42kg); 6-cell: from 5.50 lb (2.50kg); 9-cell: from 5.89 lb (2.67kg)															
Case color	Matte black (top) or glossy black (top), trimmed with a thin silver band (side); black bottom															
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic															
Battery - type ³⁷	Lithium Ion 4-cell or 6-cell															
Battery - life ¹⁰	4-cell: up to 2.9 hr; 6-cell: up to 4.5 hr															
Chipset	Mobile Intel HM55 Express Chipset															
ExpressCard/34	One ExpressCard/34															
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)															
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)															
PCIe Mini Card	Two PCI Express Mini Card slots															
Intel 1000	<i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2															
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX															
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider															
Carrier	<i>Some:</i> AT&T®, contract required with service provider															
Modem	None															
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless															
Ethernet	Realtek® RTL8111DL Gigabit Network Connection															
Intel AMT	None															
Audio support	High Definition (HD) Audio, Realtek ALC269 codec / stereo speakers, 1.5 watt x 2/ mono digital microphone, combo audio/mic jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	None															
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor															
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available															

See footnotes for important warranty information

® US models announced May 4, 2010; previous models on April 6 or April 13, 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

Storage and removable storage

USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann	01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann	01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
UltraSlim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann	11/25/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Batteries³⁷

ThinkPad Battery 25 (4-cell)	51J0498	ann	10/22/09
ThinkPad Battery 25+ (6-cell)	51J0499	ann	10/22/09
ThinkPad Battery 25++ (9-cell)	51J0500	ann	10/22/09
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputingThinkPad 65W AC Adapter⁴⁵ 40Y7696 ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.ThinkPad 90W AC Adapter 40Y7659 ann 09/20/05
90W Ultrastim AC/DC Combo Adapter 41R4493 ann 09/22/09More info at www.lenovo.com/support/poweradapters*Charging tips for 90W Ultrastim AC/DC Combo Adapter 41R4493*

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com**Carrying Cases**

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security
Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad SL410



Lenovo ThinkPad SL410



Lenovo ThinkPad SL410



Lenovo ThinkPad SL410



Lenovo ThinkPad SL410 buttons



Lenovo ThinkPad SL410 lights

ThinkPad® SL410 2842 (GMA) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

	Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Screen type	Camera	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue-tooth	Finger print reader	Battery cells	Pre-load	Availability date
Tablet PC	2842-5GU	T5870	2.00	2GB	14.0" HD	LED	Glossy		GMA	160G 5400	DVD±RW	* Intel 5100 ²⁸	None			6	XP Pro	Oct 09
	2842-5HU	T5870	2.00	3GB	14.0" HD	LED	Glossy	2.0M	GMA	250G 5400	DVD±RW	* Intel 5100	None			6	XP Pro	Oct 09
	2842-5JU	T6670	2.20	4GB	14.0" HD	LED	Glossy	2.0M	GMA	320G 5400	DVD±RW	* Intel 5100	None	Blue	Fing	6	XP Pro	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor T5870 or T6670 with dual-core, 800MHz system bus, and 2MB L2 cache										Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• ThinkVantage Toolbox• Lenovo Online Data Backup• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)									
Memory	2GB, 3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available																			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378									
Widescreen display Camera	14.0" (355mm) HD (1366x768) color, VibrantView (glossy), LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 2.0-megapixel, fixed focus, on top of screen																			
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, HDMI port supporting HDCP to output protected content; <i>Max external resolution:</i> 2048x1536@75Hz (VGA DB-15 port); 1920x1080 (HDMI port)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty									
Keyboard TrackPoint® Touch pad	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch																			
Lighting FX	Illuminated power button																			
Dimensions ³ Weight ² Case color Case material Battery - type ³⁷ Battery - life ¹⁰	4/6-cell 14.0W" (WxDxH): 13.54" x 9.17" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: starting at 4.59 lb (2.08kg); 6-cell: starting at 5.1 lb (2.3kg) ThinkPad Matte Black Scratch-resistant ABS plastic Lithium Ion 6-cell 6-cell: up to 4.0 hr; 9-cell: up to 6 hr																			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), LPC bus (IT8752)																			
ExpressCard Multicard Reader PC Card Smart Card Read Ports	One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) None None Three USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)																			
Mini PCI Express Intel 5100 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	One Mini PCI Express slot 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Realtek RTL8111DL Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, ALC269Q codec / stereo speakers, 1.5 watt / speaker volume up, down and mute buttons / mono microphone, mic mute button, mic input jack, headphone jack																			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None <i>Some:</i> Fingerprint reader on palm rest, swipe sensor																			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available																			

See footnotes for important warranty information

* Intel Centrino® processor technology

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US models announced October 22, 2009

(JAD1-2) October 2009

⚡ US models withdrawn effective February 2010

ThinkPad® SL410 2842 (GMA) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Screen type	Cam- era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue- tooth	Finger print reader	Bat- tery cells	Preload	Avail date
2842-F7U	T6570	2.10	2GB	14.0" HD	LED	Glossy	2.0M	GMA	250G 5400	DVD±RW	* Intel 1000	None			6	Pro 32	Jan 10
2842-F8U	T6570	2.10	3GB	14.0" HD	LED	Glossy	2.0M	GMA	320G 7200	DVD±RW	* Intel 1000	None			6	Pro 32	Jan 10
2842-F9U	T6670	2.20	4GB	14.0" HD	LED	Glossy	2.0M	GMA	320G 7200	DVD±RW	* Intel 1000	None	Blue	Fing	6	Pro 64	Jan 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor T6570 or T6670 with dual-core, 800MHz system bus, and 2MB L2 cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Adobe® Reader® • Adobe Flash® Player • Roxio® Creator® Business Edition (DVD±RW)
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display Camera	14.0" (355mm) HD (1366x768) color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio 2.0-megapixel, fixed focus, on top of screen		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content; <i>Max external resolution:</i> 2048x1536@75Hz (VGA DB-15 port); 1920x1080 (HDMI port)		
Keyboard TrackPoint® Touch pad	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch		
Lighting FX	Illuminated power button		Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case color Case material Battery - type ³⁷ Battery - life ¹⁰	4/6-cell 14.0W" (WxDxH): 13.54" x 9.17" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: starting at 4.59 lb (2.08kg); 6-cell: starting at 5.1 lb (2.3kg) ThinkPad Matte Black Scratch-resistant ABS plastic Lithium Ion 6-cell 6-cell: up to 4.0 hr; 9-cell: up to 6 hr		65-watt (GMA graphics) AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), LPC bus (IT8752)		ThinkPlus™. 22 1-year LOR ²⁴ 9x5 NBD 45K5968
ExpressCard	One slot (ExpressCard/34)		ThinkPlus 2-year LOR 9x5 NBD 45K5969
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		ThinkPlus 3-year LOR 9x5 NBD 45K5970
PC Card	None		ThinkPlus 4-year LOR 9x5 NBD 45K5973
Smart Card Read	None		ThinkPlus 5-year LOR 9x5 NBD 45K5975
Ports	Three USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		ThinkPlus 2-year P&L P/U Depot 45K5971
Mini PCI Express	One Mini PCI Express slot		ThinkPlus 3-year P&L P/U Depot 45K5972
Intel 1000 WWAN upg	11b/g/n wireless ⁴ , Mini PCIe adapter, Intel Centrino® Wireless-N 1000, 1x2		ThinkPlus 4-year P&L P/U Depot 45K5974
Modem	None		ThinkPlus 5-year P&L P/U Depot 45K5976
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Ethernet	Realtek RTL8111DL Gigabit Network Connection, PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, ALC269Q codec / stereo speakers, 1.5 watt / speaker volume up, down and mute buttons / mono microphone, mic mute button, mic input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	None		
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced December 15, 2009

* Intel Centrino® processor technology

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(JAD1-3) December 2009

ThinkPad® SL410 2874 (GMA) - TopSeller (Celeron) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Celeron proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Screen type	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Bat- tery Blue- tooth cells	Preload	Avail date	
2874-32U	Cel T3000	1.80	2GB	14.0" HD	LED	Glossy		GMA	160G 5400	DVD±RW	11n ²⁸	None	None	6	Home P	Oct 09
2874-7RU	Cel T3100	1.90	2GB	14.0" HD	LED	Glossy	2.0M	GMA	250G 5400	DVD±RW	Intel 1000 ²⁸	None	None	6	Home P	Jan 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- A comprehensive computing solution for small and medium business
- Balanced between serious business computing and powerful multimedia features

Processor	Intel® Celeron® Processor T3000 or T3100 with dual-core, 800MHz system bus, and 1MB L2 cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• ThinkVantage Toolbox• Lenovo Online Data Backup• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)	
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Widescreen display Camera	14.0" (355mm) HD (1366x768) color, VibrantView (glossy), LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 2.0-megapixel, fixed focus, on top of screen											
Integrated graphics	Intel Graphics Media Accelerator 4500M (GMA 4500M), in GL40, HDMI port supporting HDCP to output protected content; <i>Max external resolution:</i> 2048x1536@75Hz (VGA DB-15 port); 1920x1080 (HDMI port)										ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Keyboard TrackPoint® Touch pad	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch											
Lighting FX	Illuminated power button											
Dimensions ³ Weight ² Case color Case material Battery - type ³⁷ Battery - life ¹⁰	4/6-cell 14.0W" (WxDxH): 13.54" x 9.17" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: starting at 4.59 lb (2.08kg); 6-cell: starting at 5.1 lb (2.3kg) ThinkPad Matte Black Scratch-resistant ABS plastic Lithium Ion 6-cell 6-cell: up to 4.0 hr; 9-cell: up to 6 hr											
Chipset	Mobile Intel GL40 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), LPC bus (IT8752)											
ExpressCard	One slot (ExpressCard/34)											
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)											
PC Card	None											
Smart Card Read	None											
Ports	Three USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)											
Mini PCI Express	One Mini PCI Express slot <i>Some:</i> 11b/g/n wireless ⁴ , Mini-PCIe Adapter II <i>Some:</i> 11b/g/n wireless, Mini PCIe adapter, Intel Centrino® Wireless-N 1000, 1x2											
11n ²⁸												
Intel 1000 ²⁸												
WWAN upg	None											
Modem	None											
Bluetooth™	None											
Ethernet	Realtek® RTL8103EL 10/100 Network Connection, PHY, PCIe x1											
Intel AMT	None											
Audio support	High Definition (HD) Audio, ALC269Q codec / stereo speakers, 1.5 watt / speaker volume up, down and mute buttons / mono microphone, mic mute button, mic input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	None											
Fingerprint reader	None											
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

See footnotes for important warranty information

US model announced December 15, 2009; previous model on October 22, 2009

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(JAD1-1) December 2009

Memory

1GB PC3-8500 DDR3 SODIMM	43R1987	ann 08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann 03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann 08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann 03/17/09
4GB PC3-8500 DDR3 SODIMM	51J0493	ann 03/03/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Storage and removable storage

SL410/510 500GB 5400rpm Hard Drive	43N3422	ann 10/22/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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Batteries³⁷

ThinkPad Battery 25 (4-cell)	51J0498	ann 10/22/09
ThinkPad Battery 25+ (6-cell)	51J0499	ann 10/22/09
ThinkPad Battery 25++ (9-cell)	51J0500	ann 10/22/09
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• Palm device charge tip (L7)	41R4315	ann 12/18/07
• Blackberry charge tip (L8a)	41R4478	ann 12/18/07
• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com**Carrying Cases**

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann 05/05/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Up to 15.6" widescreen models:

Wenger Backpack for Lenovo	57Y4271	ann 01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann 01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann 01/07/10

Lenovo luxury cases at www.lenovoluxurycases.com**Monitors**

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad SL accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad SL510



Lenovo ThinkPad SL510



Lenovo ThinkPad SL510



Lenovo ThinkPad SL510



Lenovo Essential Notebook Stand
45J9292



ThinkPad SL510 Touchpad

ThinkPad® SL510 2847 (GMA) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

	Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Inte- grated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue- tooth	Finger print reader	Bat- tery cells	Preload	Avail date
✓ ✓ ✓ ✓	2847-2JU	T5870	2.00	2GB	15.6" HD	LED		GMA	160G 5400	DVD±RW	* Intel 5100 ²⁸				6	XP Pro	Oct 09
	2847-2MU	T5870	2.00	3GB	15.6" HD	LED	2.0M	GMA	250G 5400	DVD±RW	* Intel 5100				6	XP Pro	Oct 09
	2847-2NU	T5870	2.00	3GB	15.6" HD	LED	2.0M	GMA	250G 5400	DVD±RW	* Intel 5100	AT&T ²³			6	XP Pro	Oct 09
	2847-2PU	T6670	2.20	4GB	15.6" HD	LED	2.0M	GMA	320G 5400	DVD±RW	* Intel 5100		Blue	Fing	6	XP Pro	Oct 09
✓ ✓ ✓	2847-9WU	T6570	2.10	3GB	15.6" HD	LED	2.0M	GMA	320G 7200	DVD±RW	* Intel 1000 ²⁸				6	XP Pro	Jan 10
	2847-3ZU	T6570	2.10	2GB	15.6" HD	LED	2.0M	GMA	250G 5400	DVD±RW	* Intel 1000				6	XP Pro	Jan 10
	2847-QJU	T6670	2.20	4GB	15.6" HD	LED	2.0M	GMA	320G 5400	DVD±RW	* Intel 1000		Blue	Fing	6	XP Pro	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- A comprehensive computing solution for small and medium business
- Balanced between serious business computing and powerful multimedia features

Processor	Intel® Core™ 2 Duo processor T5870, T6570, or T6670 with dual-core, 800MHz system bus, and 2MB L2 cache		Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (5400 rpm), 250GB (5400 rpm), or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 2.0-megapixel, fixed focus, on top of screen		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content <i>Max external resolution:</i> 2048x1536@ 75Hz (VGA DB-15 port); 1920x1080 (HDMI port)		Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Keyboard TrackPoint® Touch pad	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminated power button		
Lighting FX			
Dimensions ³ Weight ² Case color Case material Battery - type ³⁷ Battery - life ¹⁰	4/6-cell 15.6W" (WxDxH): 14.9" x 9.72" x 1.26–1.42"; 380 x 247mm x 32–36mm 4-cell: starting at 5.17 lb (2.35kg); 6-cell: starting at 5.64 lb (2.56kg) ThinkPad Matte Black Scratch-resistant ABS plastic Lithium Ion 6-cell 6-cell: up to 4.0 hr; 9-cell: up to 6 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), LPC bus (IT8752)		
ExpressCard Multicard reader PC Card Smart Card read Ports	One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) None None Three USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
Mini PCI Express Intel 1000 ²⁸ Intel 5100 ²⁸ AT&T ²³	One or two Mini PCI Express slots <i>Some:</i> 11b/g/n wireless ⁴ , Mini PCIe adapter, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Wi-Fi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with <u>AT&T®</u>		
Modem Bluetooth™ Ethernet Intel AMT Audio support	None <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, ALC269Q codec / stereo speakers, 1.5 watt / speaker volume up, down and mute buttons / mono microphone, mic mute button, mic input jack, headphone jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None <i>Some:</i> Fingerprint reader on palm rest, swipe sensor		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information

* Intel Centrino® processor technology

US model announced October 22, 2009; previous models on October 22 or December 15, 2009

US models withdrawn effective February 2010

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(TOP1-2) April 2010

Post-warranty annual maintenance agreements at
lenovo.com/thinkplus/warranty

ThinkPad® SL510 2847 (GMA) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Screen type	Cam- era	Inte- grated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue- tooth	Finger print reader	Bat- tery cells	Preload	Avail date
2847-2KU	T5870	2.00	2GB	15.6" HD	LED			GMA	160G 5400	DVD±RW *	Intel 5100 ²⁸				6	Pro 32	Oct 09
2847-2LU	T5870	2.00	4GB	15.6" HD	LED		2.0M	GMA	250G 5400	DVD±RW *	Intel 5100		Blue		6	Home P	Oct 09
2847-2QU	P8700	2.53	4GB	15.6" HD	LED		2.0M	GMA	320G 5400	DVD±RW *	Intel 5100		Blue	Fing	6	Pro 64	Oct 09
2847-6GU	T6670	2.20	2GB	15.6" HD	LED		2.0M	GMA	250G 5400	DVD±RW *	WiMAX				6	Pro 32	Nov 09
2847-6HU	T6670	2.20	3GB	15.6" HD	LED		2.0M	GMA	250G 5400	DVD±RW *	Intel 5100	Verizon ¹⁶			6	Pro 32	Nov 09
2847-9VU	T6570	2.10	4GB	15.6" HD	LED	Glossy	2.0M	GMA	320G 7200	DVD±RW *	Intel 1000 ²⁸		Blue		6	Home P	Jan 10
2847-9YU	T6670	2.20	4GB	15.6" HD	LED		2.0M	GMA	320G 7200	DVD±RW *	Intel 1000		Blue	Fing	6	Pro 64	Jan 10
2847-9UU	T6570	2.10	2GB	15.6" HD	LED		2.0M	GMA	250G 5400	DVD±RW *	Intel 1000				6	Pro 32	Jan 10
2847-9XU	T6570	2.10	3GB	15.6" HD	LED		2.0M	GMA	320G 7200	DVD±RW *	Intel 1000				6	Pro 32	Jan 10
2847-9ZU	T6670	2.20	3GB	15.6" HD	LED		2.0M	GMA	320G 7200	DVD±RW *	Intel 1000	AT&T ²³			6	Pro 32	Jan 10
2847-AZU	T6570	2.10	2GB	15.6" HD	LED	Glossy	2.0M	GMA	250G 5400	DVD±RW *	Intel 1000				6	Home P	Apr 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor T5870, T6570, or T6670 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 32 - Some: Genuine Windows 7 Professional 64						
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)						
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (5400 rpm), 250GB (5400 rpm), or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™																
Widescreen display	Some: 15.6" (395mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (395mm) HD (1366x768) color, VibrantView (glossy), LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio																
Camera	Some: 2.0-megapixel, fixed focus, on top of screen																
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, HDMI port supporting HDCP to output protected content Max external resolution: 2048x1536@75Hz (VGA DB-15 port); 1920x1080 (HDMI port)																
Keyboard TrackPoint® Touch pad	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch																
Lighting FX	Illuminated power button																
Dimensions ³ Weight ² Case Battery - type ³⁷ Battery - life ¹⁰	4/6-cell 15.6W" (WxDxH): 14.9" x 9.72" x 1.26–1.42"; 380 x 247mm x 32–36mm 4-cell: starting at 5.17 lb (2.35kg); 6-cell: starting at 5.64 lb (2.56kg) Color: ThinkPad Matte Black; Material: Scratch-resistant ABS plastic Lithium Ion 6-cell 6-cell: up to 4.0 hr; 9-cell: up to 6 hr										Supports ThinkVantage® technologies						
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), LPC bus (IT8752) One slot (ExpressCard/34)										65-watt (GMA graphics) AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378						
ExpressCard Multicard reader PC Card Smart Card read Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) None None Three USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)																
Mini PCI Express Intel 1000 ²⁸ Intel 5100 ²⁸ WiMAX Verizon ¹⁶ AT&T ²³	One or two Mini PCI Express slots Some: 11b/g/n wireless ⁴ , Mini PCIe adapter, Intel Centrino® Wireless-N 1000, 1x2 Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n and WiMAX wireless, Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak) Some: Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon® Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®										ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty						
Modem Bluetooth™ Ethernet Intel AMT Audio support	None Some: Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, ALC269Q codec / stereo speakers, 1.5 watt / speaker volume up, down and mute buttons / mono microphone, mic mute button, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole																
Security Security chip Fingerprint reader	None None Some: Fingerprint reader on palm rest, swipe sensor																
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available																

See footnotes for important warranty information

* Intel Centrino® processor technology

US model announced April 6, 2010;

✦ Intel Centrino 2 processor technology

previous models on October 22, November 17, or December 15, 2009

US models withdrawn effective February 2010

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(TOP1-3) April 2010

ThinkPad® SL510 2875 (GMA) - TopSeller (Celeron) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Celeron proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Screen type	Cam- era	Inte- grated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Bat- tery Blue/ Fing cells	Preload	Avail date	
2875-32U	Cel T3000	1.80	1GB	15.6" HD	LED	Glossy		GMA	160G 5400	DVD±RW	11n ²⁸	None	None	6	Home P	Oct 09
2875-4YU	Cel T3100	1.90	2GB	15.6" HD	LED	Glossy	2.0M	GMA	250G 5400	DVD±RW	Intel 1000 ²⁸	None	None	6	Home P	Jan 10

- *These small and medium business (SMB) models are part of the US TopSeller™ Program*
- *A comprehensive computing solution for small and medium business*
- *Balanced between serious business computing and powerful multimedia features*

Processor	Intel® Celeron® Processor T3000 or T3100 with dual-core, 800MHz system bus, and 1MB L2 cache	Preloaded operating system²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• ThinkVantage Toolbox• Lenovo Online Data Backup• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	15.6" (395mm) HD (1366x768) color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 2.0-megapixel, fixed focus, on top of screen	
Integrated graphics	Intel Graphics Media Accelerator 4500M (GMA 4500M) , in GL40, HDMI port supporting HDCP to output protected content <i>Max external resolution:</i> 2048x1536 @ 75Hz (VGA DB-15 port); 1920x1080 (HDMI port)	
Keyboard TrackPoint® Touch pad	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminated power button	
Lighting FX		
Dimensions ³ Weight ² Case color Case material Battery - type ³⁷ Battery - life ¹⁰	<i>4/6-cell 15.6W" (WxDxH):</i> 14.9" x 9.72" x 1.26–1.42"; 380 x 247mm x 32–36mm <i>4-cell:</i> starting at 5.17 lb (2.35kg); <i>6-cell:</i> starting at 5.64 lb (2.56kg) ThinkPad Matte Black Scratch-resistant ABS plastic Lithium Ion 6-cell <i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6 hr	
Chipset	Mobile Intel GL40 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), LPC bus (IT8752) One slot (ExpressCard/34)	
ExpressCard Multicard reader PC Card Smart Card read Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) None None Three USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
Mini PCI Express 11n ²⁸ Intel 1000 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	One Mini PCI Express slot <i>Some:</i> 11b/g/n wireless ⁴ , Mini-PCIe Adapter II <i>Some:</i> 11b/g/n wireless, Mini PCIe adapter, Intel Centrino® Wireless-N 1000, 1x2 None None None Realtek® RTL8103EL 10/100 Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, ALC269Q codec / stereo speakers, 1.5 watt / speaker volume up, down and mute buttons / mono microphone, mic mute button, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole	
Security Security chip Fingerprint reader	None None None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies
65-watt (GMA graphics) AC adapter RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
ThinkPlus 2-year LOR 9x5 NBD 45K5969
ThinkPlus 3-year LOR 9x5 NBD 45K5970
ThinkPlus 4-year LOR 9x5 NBD 45K5973
ThinkPlus 5-year LOR 9x5 NBD 45K5975
ThinkPlus 2-year P&L P/U Depot 45K5971
ThinkPlus 3-year P&L P/U Depot 45K5972
ThinkPlus 4-year P&L P/U Depot 45K5974
ThinkPlus 5-year P&L P/U Depot 45K5976
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

👉 US model announced December 15, 2009; previous model on October 22, 2009

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(TOP1-1) December 2009

Memory

1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann	03/17/09
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann	03/17/09
4GB PC3-8500 DDR3 SODIMM	51J0493	ann	03/03/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09

Storage and removable storage

SL410/510 500GB 5400rpm Hard Drive	43N3422	ann	10/22/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann	01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann	01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Preferred Pro USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Batteries³⁷

ThinkPad Battery 25 (4-cell)	51J0498	ann	10/22/09
ThinkPad Battery 25+ (6-cell)	51J0499	ann	10/22/09
ThinkPad Battery 25++ (9-cell)	51J0500	ann	10/22/09
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696		
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•Blackberry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com**Carrying Cases**

Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Backpack	43R2482	ann	05/13/08

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad SL accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

Footnotes:

¹ Power management, including Intel® SpeedStep® Technology, reduces processor speed when in battery mode.

² **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.

³ **Thinness** may vary at certain points on the system.

⁴ **Wireless capability:** Requires compatible wireless-enabled options sold separately.

⁶ **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.

⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On ThinkPad systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.

⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.

¹⁰ **Battery:** These model numbers achieved the battery life based on MobileMark® 2007 during testing. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

¹² **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

¹³ **Internet access not included.**

¹⁴ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

¹⁶ **Activating Verizon Wireless Service:** Lenovo customers will be contacted after purchase to activate service; requires separate agreement with Verizon Wireless and is subject to the Customer Agreement, Calling Plan, and credit approval. Service, airtime, and early termination charges may apply. Verizon Wireless, not Lenovo, is solely responsible for service. Service not available in all areas; purchaser is responsible for verifying that service is available for the intended location before purchasing a computer equipped with WAN card. Network details, coverage limitations, and maps at www.verizonwireless.com.

¹⁷ **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

¹⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For ThinkPad notebooks with EasyServ or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.

¹⁹ **EasyServ depot repair service:** In the United States call 1-800-426-7378. The customer may be asked certain diagnostic questions before a courier is sent. Your ThinkPad purchase includes this depot repair service, available in the U.S. during the limited warranty period.

²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.

²² **ThinkPlus Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. For ThinkPad notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

²³ **Activating AT&T Wireless Service:** Requires separate agreement with AT&T, subject to service agreement, rate plan and coverage maps. AT&T, not Lenovo, is solely responsible for service. Coverage not available in all areas; AT&T BroadbandConnect available in select metropolitan markets. Special credit and tenure restrictions and additional charges may apply to international roaming. A network connection, third-party software, additional hardware, and/or subscription to a third-party service may be required for certain solutions/applications. Additional restrictions apply, including early termination fee; see www.wireless.att.com for details. To activate call Lenovo Wireless Activation Hot Line at 1-877-299-4710.

²⁴ **Limited onsite service systems** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges. Lenovo onsite repair (LOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day (NBD) response time.

²⁷ **Based on IEEE 802.11a and 802.11b.** A customer can not upgrade to a different wireless Mini PCI adapter due to FCC regulations. Security screws prevent removal of this adapter. This wireless LAN product has been designed to permit legal operation world-wide in regions which it is approved. This product has been tested and certified to be interoperable by the Wireless Ethernet Compatibility Alliance and is authorized to carry the Wi-Fi logo.

²⁸ **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.

³⁰ **Measures only maximum** data transfer rate, not application performance. Many factors affect application performance.

³² **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.

³⁵ **Operating system:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/think/support and enter your machine type and model number for more information.

³⁷ **Battery:** The ThinkPad Edge and ThinkPad SL series do not support batteries that are not genuine Lenovo-made or authorized. These systems will continue to boot, but may not charge unauthorized batteries.

Warning: Lenovo has no responsibility for the performance or safety of unauthorized batteries, and provides no warranties for failures or damage arising out of their use.

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May 2010
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Personal Systems Reference Lenovo® ThinkCentre Desktops

May 2010 - Version 377

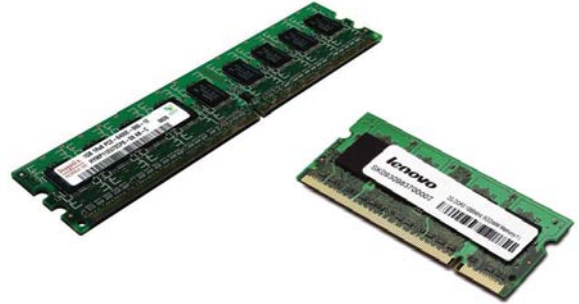


Lenovo ThinkCentre M90/M90p
(Eco Ultra Small, Small, Tower Form Factors)

Visit www.lenovo.com/psref for the latest version



Kensington® MicroSaver® Cable Lock
73P2582
Kensington Twin Head Cable Lock
45K1620



1GB PC2-6400 NP DDR2 UDIMM 41U2977
2GB PC2-6400 NP DDR2 UDIMM 41U2978
1GB PC3-8500 DDR3 UDIMM 45J5434
2GB PC3-8500 DDR3 UDIMM 45J5435
1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987
2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988
(UDIMM for SFF, Tower only; SODIMM for Eco USFF only)



ATI™ Radeon™ HD 3470 256MB (DP, VGA)
45K1636



Lenovo® USB-to-DVI Monitor Adapter
45K5296



Ultralim Wireless Keyboard and Mouse
57Y4700



Lenovo Laser Mouse (USB)
41U3074



Lenovo ThinkCentre M58e Small and
Lenovo ThinkCentre M58e Tower



Lenovo ThinkCentre M58e Small
with dual Lenovo ThinkVision monitors



Lenovo ThinkCentre M58e Small



Lenovo ThinkCentre M58e Small
with Lenovo ThinkVision monitor



Lenovo ThinkCentre M58e Tower




Lenovo ThinkCentre M58e Tower
with Lenovo ThinkVision monitor

ThinkCentre® M58e Small (7259) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Preload	Global Educ	Avail date
M58e	7259-B1U	2x3	Pentium E6300	2.80	2MB	2	1GB	250GB ²	DVD	GMA	XP Pro	None	Nov 09
M58e	7259-B2U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro	None	Nov 09
M58e	7259-B3U	2x3	Pentium E6300	2.80	2MB	2	3GB	500GB	DVD±RW	GMA	XP Pro	None	Nov 09

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 1-year limited warranty¹**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E6300 with dual-core, 1066MHz system bus, and 2MB L2 cache Processor in LGA775 socket		Small 
Implementation	Processor in LGA775 socket		
Memory	1GB, 2GB, or 3GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB or 3GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement
SATA disk	250GB or 500GB, SATA 3.0Gb/s 7200 rpm, vibration dampening		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing		
Preloaded operating system²⁰		Accessories	
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional		1GB PC2-6400 DDR2 UDIMM	41U2977
		2GB PC2-6400 DDR2 UDIMM	41U2978
		250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015
		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
		DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618
		Super Multi-Burner DL DVD±RW SATA Drive	41N5620
		DisplayPort™ to Single-link DVI-D Cable	45J7915
		ADD2 DVI-D Monitor Connection (HDCP)	43R1985
		ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636
		NVIDIA® Quadro® 256MB FX 370 LP	55Y9275
		NVIDIA Quadro 256MB NVS 290	43R1765
		More accessories on O-M58E sheet	
		Acc Guide in pdf lenovo.com/accessoriesguide	
		Other accessories at lenovo.com/accessories	
Preloaded applications⁵ (only some listed)			
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• Adobe® Reader®			
• Windows Live™ Toolbar			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD, DVD±RW)			

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7259-D3U	2x3	Celeron E3200	2.40	1MB	2	1GB	250GB ²	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7259-D2U	2x3	Pentium E5400	2.70	2MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7259-D1U	2x3	Pentium E5400	2.70	2MB	2	3GB	320GB	DVD±RW	GMA	Pro 32	None	Jan 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 1-year limited warranty¹**


Positioning Processor	Mainstream enterprise stability and manageability Intel® Celeron® Processor E3200 with dual-core , 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E5400 with dual-core , 800MHz system bus, and 2MB L2 cache			Small <div><div><div>optical</div><div>disk (in rear)</div></div></div>				
Implementation	Processor in LGA775 socket			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)				
Memory	1GB, 2GB, or 3GB std , 4GB max ^a , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available			Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation				
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 253MB [1GB models], 765MB [2GB models], or 1277MB [3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			<div>Security</div> <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement				
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening							
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7							
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive							
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar							
eSATA port	None			Supports ThinkVantage® technologies				
Diskette drive	None							
Media reader	None							
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)							
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)							
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			GREENGUARD® certified RoHS-compliant				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)							
Audio	High Definition (HD) Audio, Realtek® ALC662 codec							
Speaker	One internal speaker for business audio							
IEEE 1394	None							
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®			Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9189)• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9187)• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9190)• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9188)• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9191)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378				
Intel AMT	None							
Modem	None							
Security chip	None							
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo							
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			<div>Preloaded operating system²⁰</div> <div>- Genuine Windows® 7 Professional 32</div> <div>Preloaded applications⁵ (only some listed)</div> <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)				
Power supply	280 watts with variable speed fan, autosensing							
Accessories			1GB PC2-6400 DDR2 UDIMM 41U2977					
			2GB PC2-6400 DDR2 UDIMM 41U2978					
			250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015					
			500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990					
			1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918					
			Super Multi-Burner DL DVD±RW SATA Drive 41N5620					
			DisplayPort™ to Single-link DVI-D Cable 45J7915					
			ADD2 DVI-D Monitor Connection (HDCP) 43R1985					
			ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636					
			NVIDIA® Quadro® 256MB FX 370 LP 55Y9275					
			NVIDIA Quadro 256MB NVS 290 43R1765					
			More accessories on O-M58E sheet					
			Acc Guide in pdf lenovo.com/accessoriesguide					
			Other accessories at lenovo.com/accessories					

ThinkCentre® M58e Small (7269) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Chassis intr switch	Preload	Global Educ	Avail date
M58e	7269-E5U	2x3	Pentium E5400	2.70	2MB	2	1GB	250GB ²	DVD	GMA		XP Pro	None	Jan 10
M58e	7269-D5U	2x3	Pentium E6300	2.80	2MB	2	1GB	250GB	DVD	GMA	Switch	XP Pro	None	Nov 09
M58e	7269-D6U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	Switch	XP Pro	None	Nov 09
M58e	7269-D7U	2x3	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	DVD±RW	GMA		XP Pro	None	Nov 09
M58e	7269-D8U	2x3	Core 2 Quad Q9400	2.66	6MB	4	3GB	500GB	DVD±RW	GMA		XP Pro	None	Nov 09
M58e	7269-F1U	2x3	Core 2 Quad Q9500	2.83	6MB	4	3GB	500GB	DVD±RW	GMA		XP Pro	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Pentium Processor E6300 with dual-core, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q9400 or Q9500 with quad-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket	Small  Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																														
Implementation	Processor in LGA775 socket																															
Memory	1GB, 2GB, or 3GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available																															
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB or 3GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																															
SATA disk	250GB, 320GB, or 500GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement• <i>Some:</i> Chassis intrusion switch																														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																															
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																															
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																															
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																															
eSATA port	None																															
Diskette drive	None																															
Media reader	None																															
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																															
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																															
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																															
Speaker	One internal speaker for business audio																															
IEEE 1394	None																															
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																															
Intel AMT	None																															
Modem	None																															
Security chip	None																															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																															
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																															
Power supply	280 watts with variable speed fan, autosensing																															
Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)		Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>41N3015</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort™ to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td>NVIDIA Quadro 256MB NVS 290</td><td>43R1765</td></tr><tr><td colspan="2">More accessories on O-M58E sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>	1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort™ to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275	NVIDIA Quadro 256MB NVS 290	43R1765	More accessories on O-M58E sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC2-6400 DDR2 UDIMM	41U2977																															
2GB PC2-6400 DDR2 UDIMM	41U2978																															
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																															
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DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																															
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																															
DisplayPort™ to Single-link DVI-D Cable	45J7915																															
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																															
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NVIDIA Quadro 256MB NVS 290	43R1765																															
More accessories on O-M58E sheet																																
Acc Guide in pdf lenovo.com/accessoriesguide																																
Other accessories at lenovo.com/accessories																																
		Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)➤ ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																														

See footnotes for important warranty information

US model announced March 2, 2010; previous models on November 3 or December 15, 2009

US models withdrawn effective January or April 2010

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(MIAM3-8) March 2010

ThinkCentre® M58e Small (7269) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7269-E6U	2x3	Pentium E5400	2.70	2MB	2	1GB	250GB ²	DVD	GMA	Pro 32	None	Jan 10
M58e	7269-E7U	2x3	Pentium E5400	2.70	2MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7269-E8U	2x3	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7269-E9U	2x3	Core 2 Quad Q9400	2.66	6MB	4	3GB	500GB	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7269-F2U	2x3	Core 2 Quad Q9500	2.83	6MB	4	3GB	500GB	DVD±RW	GMA	Pro 32	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q9400 or Q9500 with quad-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		Small <div><div>optical</div><div>disk</div><div>(in rear)</div></div> <p>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation	
Implementation			<div><div>Security</div><ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement</div> <div>Supports ThinkVantage® technologies</div> <div>GREENGUARD® certified RoHS-compliant</div> <div><div>Limited Warranty¹</div><div><div>⇒ 3-year parts and labor</div><div>⇒ International Warranty Service⁹</div><div>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</div><div>⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</div><div>⇒ ThinkPlus services at lenovo.com/thinkplus/warranty</div><div>⇒ Post warranty maintenance services available</div><div>⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div></div>	
Memory	1GB, 2GB, or 3GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available			
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 253MB [1GB models], 765MB [2GB models], or 1277MB [3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			
SATA disk	250GB, 320GB, or 500GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	One internal speaker for business audio			
IEEE 1394	None			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	None			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosensing			
<div><div><div><div>Preloaded operating system²⁰</div><div>- Genuine Windows® 7 Professional 32</div><div>Preloaded applications⁵ (only some listed)</div><div><ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)</div></div><div><div>Accessories</div><div><div>1GB PC2-6400 DDR2 UDIMM</div><div>2GB PC2-6400 DDR2 UDIMM</div><div>250GB SATA 3.0Gb/s Disk (7200 rpm)</div><div>500GB SATA 3.0Gb/s Disk (7200 rpm)</div><div>1TB SATA 3.0Gb/s Disk (7200 rpm)</div><div>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</div><div>Super Multi-Burner DL DVD±RW SATA Drive</div><div>DisplayPort™ to Single-link DVI-D Cable</div><div>ADD2 DVI-D Monitor Connection (HDCP)</div><div>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</div><div>NVIDIA® Quadro® 256MB FX 370 LP</div><div>NVIDIA Quadro 256MB NVS 290</div><div>More accessories on O-M58E sheet</div><div>Acc Guide in pdf lenovo.com/accessoriesguide</div><div>Other accessories at lenovo.com/accessories</div></div><div><div>41U2977</div><div>41U2978</div><div>41N3015</div><div>43R1990</div><div>45J7918</div><div>41N5618</div><div>41N5620</div><div>45J7915</div><div>43R1985</div><div>45K1636</div><div>55Y9275</div><div>43R1765</div></div></div></div></div>				

See footnotes for important warranty information

US model announced March 2, 2010; previous models on January 12, 2010

US model withdrawn effective April 2010

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(MIAM3-15) March 2010

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Floor stand	Preload	Global Educ	Avail date
☞	M58e	7303-F9U	2x3	Pentium E5200	2.50	2MB	2	1GB	160GB ²	DVD	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-C6U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB	DVD	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-G8U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-C7U	2x3	Pentium E5300	2.60	2MB	2	2GB	250GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-C8U	2x3	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	DVD	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-D1U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-C9U	2x3	Core 2 Duo E7500	2.93	3MB	2	1GB	160GB	DVD	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-D2U	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-D3U	2x3	Core 2 Duo E8400	3.00	6MB	2	1GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-D5U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-G7U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-D4U	2x3	Core 2 Duo E8500	3.16	6MB	2	1GB	250GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-D6U	2x3	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
☞	M58e	7303-G9U	2x3	Core 2 Quad Q8200	2.33	4MB	4	2GB	250GB	DVD±RW	GMA	Stand	XP Pro	Apr 09

• These models have a 3-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5200 or E5300 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 or E8500 with dual-core , 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core , 1333MHz system bus, and 4MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket			Small <div><div>optical</div><div>disk</div><div>(in rear)</div></div> <p>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• <i>Some:</i> system floor stand for vertical orientation																									
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket			<div>Security</div> <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement <p>Supports ThinkVantage® technologies</p> <div>GREENGUARD® certified RoHS-compliant</div> <div>Limited Warranty¹</div> <div><div>☞ 3-year parts and labor</div><div>☞ International Warranty Service⁹</div><div>☞ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</div><div>☞ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</div><div>☞ Other ThinkPlus services at lenovo.com/thinkplus/warranty</div><div>☞ Post warranty maintenance services available</div><div>☞ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div>																									
Memory	1GB or 2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available																												
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																												
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening																												
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																												
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																												
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																												
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																												
eSATA port	None																												
Diskette drive	None																												
Media reader	None																												
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																												
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																												
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																												
Speaker	One internal speaker for business audio																												
IEEE 1394	None																												
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																												
Intel AMT	None																												
Modem	None																												
Security chip	None																												
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																												
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																												
Power supply	280 watts with variable speed fan, autosensing																												
<div><div>Preloaded operating system²⁰<ul style="list-style-type: none">- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)Preloaded applications⁵ (only some listed)<ul style="list-style-type: none">• <i>Some:</i> Education software- VitalSource Library School Edition- Adobe® Elements<ul style="list-style-type: none">– Photoshop Elements 7– Premiere Elements 7• Rescue and Recovery™• Client Security Solution™• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)</div><div>Accessories<table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td>NVIDIA Quadro 256MB NVS 290</td><td>43R1765</td></tr><tr><td colspan="2">More accessories on O-M58E sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table></div></div>				1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275	NVIDIA Quadro 256MB NVS 290	43R1765	More accessories on O-M58E sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
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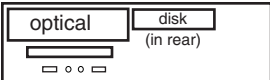
See footnotes for important warranty information
US models announced March 10 or March 24, 2009

☞ US models withdrawn effective October or December 2009

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(MIAM1-3) April 2009

ThinkCentre® M58e Small (7303) - XP with Win 7 License

Personal Systems Reference (PSREF)

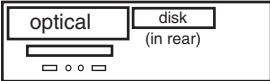
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Preload	Global Educ	Avail date
M58e	7303-R1U	2x3	Pentium E6300	2.80	2MB	2	1GB	250GB ²	DVD	GMA	XP Pro		Oct 09
M58e	7303-R2U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro		Oct 09
M58e	7303-R3U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro	Educ	Oct 09
M58e	7303-Q9U	2x3	Core 2 Quad Q8400	2.66	4MB	4	2GB	250GB	DVD±RW	GMA	XP Pro		Oct 09
• <i>These models have a 3-year limited warranty¹</i>													
Positioning	Mainstream enterprise stability and manageability								Small				
Processor	Intel® Pentium® Processor E6300 with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Quad Processor Q8400 with quad-core, Virtualization Technology, 1333MHz system bus, and 4MB L2 cache												
Implementation	Processor in LGA775 socket								Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)				
Memory	1GB or 2GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; Non-italics: standard memory in one socket; one socket available								Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3				
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 512MB [1GB models], 1GB [2GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter								<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation				
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts								Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7												
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive												
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive												
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar												
eSATA port	None												
Diskette drive	None												
Media reader	None												
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)												
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)												
Audio	High Definition (HD) Audio, Realtek® ALC662 codec												
Speaker	One internal speaker for business audio												
IEEE 1394	None												
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®												
Intel AMT	None												
Modem	None												
Security chip	None												
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo								Supports ThinkVantage® technologies				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo												
Power supply	280 watts with variable speed fan, autosensing								GREENGUARD® certified RoHS-compliant				
Preloaded operating system ²⁰				Accessories				Limited Warranty ¹					
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional				1GB PC2-6400 DDR2 UDIMM 41U2977				⇒ 3-year parts and labor					
				2GB PC2-6400 DDR2 UDIMM 41U2978				⇒ International Warranty Service ⁹					
				250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015				⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)					
				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990				⇒ Onsite service upgrade options (in eligible locations): ⁷					
Preloaded applications ⁵ (only some listed)				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918				• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)					
• Some: Education software				DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618				• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)					
- VitalSource Library School Edition				Super Multi-Burner DL DVD±RW SATA Drive 41N5620				• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)					
- Adobe® Elements				DisplayPort™ to Single-link DVI-D Cable 45J7915				• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)					
- Photoshop Elements 7				ADD2 DVI-D Monitor Connection (HDCP) 43R1985				• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)					
- Premiere Elements 7				ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636				⇒ ThinkPlus services at lenovo.com/thinkplus/warranty					
• Rescue and Recovery™				NVIDIA® Quadro® 256MB FX 370 LP 55Y9275				⇒ Post warranty maintenance services available					
• Client Security Solution™				NVIDIA Quadro 256MB NVS 290 43R1765				⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378					
• ThinkVantage Productivity Center				More accessories on O-M58E sheet									
• ThinkVantage System Update				Acc Guide in pdf lenovo.com/accessoriesguide									
• ThinkVantage Power Manager				Other accessories at lenovo.com/accessories									
• McAfee® VirusScan® Plus (30 days of virus definitions)													
• Lenovo System Toolbox													
• Adobe Reader®													
• Windows Live™ Toolbar													
• Microsoft® Office 2007 Trial (60-day)													
• Roxio® Creator® Business Edition (DVD±RW)													
• Roxio MyDVD® (DVD±RW)													
• Corel® WinDVD® (DVD, DVD±RW)													

See footnotes for important warranty information
 US models announced October 22, 2009
 ⚠ US model withdrawn effective December 2009

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 (MIAM3-1) October 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date
M58e	7303-D8U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB ²	DVD	GMA	Business32	Basic	None	Apr 09
M58e	7303-D9U	2x3	Pentium E5300	2.60	2MB	2	2GB	250GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E1U	2x3	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	DVD	GMA	Business32	Basic	None	Apr 09
M58e	7303-E3U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E2U	2x3	Core 2 Duo E7500	2.93	3MB	2	1GB	160GB	DVD	GMA	Business32	Basic	None	Apr 09
M58e	7303-E4U	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E5U	2x3	Core 2 Duo E8400	3.00	6MB	2	1GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E7U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E6U	2x3	Core 2 Duo E8500	3.16	6MB	2	1GB	250GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E8U	2x3	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	DVD±RW	GMA	Business32	Basic	None	Apr 09

• These models have a 3-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5300 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 or E8500 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Small 																							
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)																							
Memory	1GB or 2GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3																							
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 253MB [1GB models], 765MB [2GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																							
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening		Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																							
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																									
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																									
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																									
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																									
eSATA port	None		Supports ThinkVantage® technologies																							
Diskette drive	None																									
Media reader	None		GREENGUARD® certified RoHS-compliant																							
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																							
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																									
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																									
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																									
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																									
Speaker	One internal speaker for business audio		Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td>NVIDIA Quadro 256MB NVS 290</td><td>43R1765</td></tr></table> More accessories on O-M58E sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275	NVIDIA Quadro 256MB NVS 290	43R1765
1GB PC2-6400 DDR2 UDIMM	41U2977																									
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500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																									
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																									
DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																									
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ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																									
NVIDIA® Quadro® 256MB FX 370 LP	55Y9275																									
NVIDIA Quadro 256MB NVS 290	43R1765																									
IEEE 1394	None																									
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																									
Intel AMT	None																									
Modem	None																									
Security chip	None																									
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32																							
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																									
Power supply	280 watts with variable speed fan, autosensing																									
Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)																										

See footnotes for important warranty information

US models announced March 10, 2009

⚠ US models withdrawn effective October or December 2009

ThinkCentre® M58e Small (7303) - Windows 7

Personal Systems Reference (PSREF)






Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^s	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7303-BAU	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB ²	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7303-BBU	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7303-BCU	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Jan 10

- ***These models have a 3-year limited warranty¹***

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E6300 with dual-core, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		<div>Small<div><div>opticaldisk</div><div>(in rear)</div></div><div>Bay ① 5.25", 1.6" high, access, std optical</div><div>Bay ② 3.5", 1" high, no access, std disk</div><div>Bay ③ 3.5", .5" high, access, open (reader)</div><div>Slot 1: Low Profile, PCI Express x16 (35w max)</div><div>Slot 2: Low Profile, 32-bit PCI 2.3</div><div>• Business black color; metal case</div><div>• 12.5" W X 14.0" D X 3.9" H</div><div>• 317mm W X 355mm D X 99mm H</div><div>• 16.5 lb (7.5 kg) in maximum configuration</div><div>• Toolless cover flips up and tilts backward on rear hinges</div><div>• Toolless disk, optical drive removal</div><div>• Toolless adapter retention</div><div>• Toolless systemboard retention</div><div>• System floor stand for vertical orientation</div></div>
Implementation			
Memory	2GB std, 4GB max⁸, PC2-6400 800MHz DDR2. Non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing		
<div><div><div><div>Preloaded operating system²⁰</div><div>- Genuine Windows® 7 Professional 32</div></div><div><div>Preloaded applications⁵ (only some listed)</div><div>• Rescue and Recovery™</div><div>• Password Manager</div><div>• ThinkVantage System Update</div><div>• ThinkVantage Power Manager</div><div>• ThinkVantage Toolbox</div><div>• Lenovo Online Data Backup</div><div>• Norton™ Internet Security 2009 (30 days of virus definitions)</div><div>• Adobe® Reader®</div><div>• Adobe Flash® Player</div><div>• Skype™ for Windows</div><div>• Microsoft® Office 2007 Trial (60-day)</div><div>• Roxio® Creator® Business Edition (DVD±RW)</div><div>• Roxio MyDVD® (DVD±RW)</div></div></div><div><div>Accessories</div><div>1GB PC2-6400 DDR2 UDIMM 41U2977</div><div>2GB PC2-6400 DDR2 UDIMM 41U2978</div><div>250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015</div><div>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</div><div>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</div><div>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</div><div>DisplayPort™ to Single-link DVI-D Cable 45J7915</div><div>ADD2 DVI-D Monitor Connection (HDCP) 43R1985</div><div>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</div><div>NVIDIA® Quadro® 256MB FX 370 LP 55Y9275</div><div>NVIDIA Quadro 256MB NVS 290 43R1765</div><div>More accessories on O-M58E sheet</div><div>Acc Guide in pdf lenovo.com/accessoriesguide</div><div>Other accessories at lenovo.com/accessories</div></div></div>			
<div><div>GREENGUARD® certified</div><div>RoHS-compliant</div></div>			
<div><div><div>Limited Warranty¹</div><div>⇒ 3-year parts and labor</div><div>⇒ International Warranty Service®</div><div>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</div><div>⇒ Onsite service upgrade options (in eligible locations):⁷</div><div>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</div><div>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</div><div>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</div><div>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</div><div>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</div><div>⇒ ThinkPlus services at lenovo.com/thinkplus/warranty</div><div>⇒ Post warranty maintenance services available</div><div>⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div></div>			
Supports ThinkVantage® technologies			

See footnotes for important warranty information
US models announced December 15, 2009

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(MIAM3-12) December 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	ENERGY STAR 5.0	Preload	Global Educ	Avail date
	M58e	7506-C7U	2x3	Pentium E5200	2.50	2MB	2	1GB	160GB ²	DVD	GMA	XP Pro		Apr 09
	M58e	7506-B9U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB	DVD	GMA	XP Pro		Apr 09
	M58e	7506-C1U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	XP Pro		Apr 09
	M58e	7506-C2U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	XP Pro		Apr 09
	M58e	7506-C9U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	XP Pro	Educ	Apr 09

• These models have a 3-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5200 or E5300 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Small <div><div>optical</div><div>disk (in rear)</div></div>																								
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)																								
Memory	1GB or 2GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3																								
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																								
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																								
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																										
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																										
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																										
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																										
eSATA port	None		Supports ThinkVantage® technologies																								
Diskette drive	None																										
Media reader	None																										
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																										
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		Climate Savers®-compliant <i>Some:</i> EPEAT™ Gold rating <i>Some:</i> ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant																								
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																										
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																										
Speaker	One internal speaker for business audio																										
IEEE 1394	None																										
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																								
Intel AMT	None																										
Modem	None																										
Security chip	None																										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																										
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																										
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)		Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>41N3015</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td>NVIDIA Quadro 256MB NVS 290</td><td>43R1765</td></tr></table> <p>More accessories on O-M58E sheet</p> <p>Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</p>		1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275	NVIDIA Quadro 256MB NVS 290	43R1765
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NVIDIA® Quadro® 256MB FX 370 LP	55Y9275																										
NVIDIA Quadro 256MB NVS 290	43R1765																										
Preloaded applications⁵ <ul style="list-style-type: none">• <i>Some:</i> Education software- VitalSource Library School Edition- Adobe® Elements<ul style="list-style-type: none">- Photoshop Elements 7- Premiere Elements 7• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)																											

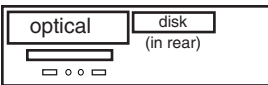
See footnotes for important warranty information
US models announced March 10 or March 24, 2009

⚠ US models withdrawn effective June, October, or December 2009

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(MIAM1-5) June 2009

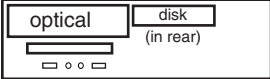
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	ENERGY STAR 5.0	Preload	Global Educ	Avail date
M58e	7506-M2U	2x3	Pentium E5300	2.60	2MB	2	2GB	160GB ²	DVD±RW	GMA	ES50	XP Pro	None	Jul 09
M58e	7506-M1U	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	DVD±RW	GMA	ES50	XP Pro	None	Jul 09

- *These models have a 3-year limited warranty¹*

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Small 																												
Implementation			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)																												
Memory	2GB std, 4GB max⁸, PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3																												
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 1GB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																												
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																														
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																														
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																														
eSATA port	None																														
Diskette drive	None																														
Media reader	None																														
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																														
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																														
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																														
Speaker	One internal speaker for business audio																														
IEEE 1394	None																														
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																														
Intel AMT	None																														
Modem	None																														
Security chip	None																														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Supports ThinkVantage® technologies																												
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																														
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant																												
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)		Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>41N3015</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td>NVIDIA Quadro 256MB NVS 290</td><td>43R1765</td></tr><tr><td colspan="2">More accessories on O-M58E sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>		1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275	NVIDIA Quadro 256MB NVS 290	43R1765	More accessories on O-M58E sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC2-6400 DDR2 UDIMM	41U2977																														
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Acc Guide in pdf lenovo.com/accessoriesguide																															
Other accessories at lenovo.com/accessories																															
Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																													

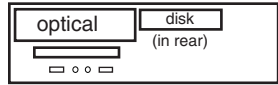
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	ENERGY STAR 5.0	Preload	Global Educ	Avail date
M58e	7506-N6U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB ²	DVD±RW	GMA	ES50	XP Pro	None	Oct 09

- *This model has a 3-year limited warranty¹*

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E6300 with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache			Small 		
Implementation	Processor in LGA775 socket					
Memory	2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation		
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 1GB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement		
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7					
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive					
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors					
eSATA port	None			Supports ThinkVantage® technologies		
Diskette drive	None					
Media reader	None					
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)					
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)					
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)					
Audio	High Definition (HD) Audio, Realtek® ALC662 codec					
Speaker	One internal speaker for business audio					
IEEE 1394	None					
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®					
Intel AMT	None					
Modem	None					
Security chip	None					
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo					
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo					
Power supply	280 watts with variable speed fan, autosensing, 85% PSU					
Preloaded operating system ²⁰				Accessories		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional				1GB PC2-6400 DDR2 UDIMM 41U2977		
				2GB PC2-6400 DDR2 UDIMM 41U2978		
				250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015		
				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918		
Preloaded applications ⁵ (only some listed)				Super Multi-Burner DL DVD±RW SATA Drive 41N5620		
• Rescue and Recovery™				DisplayPort™ to Single-link DVI-D Cable 45J7915		
• Client Security Solution™				ADD2 DVI-D Monitor Connection (HDCP) 43R1985		
• ThinkVantage Productivity Center				ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636		
• ThinkVantage System Update				NVIDIA® Quadro® 256MB FX 370 LP 55Y9275		
• ThinkVantage Power Manager				NVIDIA Quadro 256MB NVS 290 43R1765		
• McAfee® VirusScan® Plus (30 days of virus definitions)				More accessories on O-M58E sheet		
• Lenovo System Toolbox				Acc Guide in pdf lenovo.com/accessoriesguide		
• Adobe® Reader®				Other accessories at lenovo.com/accessories		
• Windows Live™ Toolbar						
• Microsoft® Office 2007 Trial (60-day)						
• Roxio® Creator® Business Edition (DVD±RW)						
• Roxio MyDVD® (DVD±RW)						
• Corel® WinDVD® (DVD±RW)						

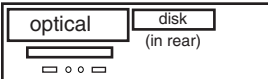
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Vista preload	Vista logo	Global (G) GMP (P)	Avail date
M58e	7408-A1U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB ²	DVD±RW	GMA	Business32	Basic	G P	Apr 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Small 
Implementation	Processor in FC-LGA8 package in LGA775 socket		
Memory	2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<div>Bay ① 5.25", 1.6" high, access, std optical</div> <div>Bay ② 3.5", 1" high, no access, std disk</div> <div>Bay ③ 3.5", .5" high, access, open (reader)</div> <div>Slot 1: Low Profile, PCI Express x16 (35w max)</div> <div>Slot 2: Low Profile, 32-bit PCI 2.3</div> <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing		
Preloaded operating system ²⁰			Accessories
- Genuine Windows® Vista® Business 32			
Preloaded applications ⁵			<div>41U2977</div> <div>41U2978</div> <div>41N3015</div> <div>43R1990</div> <div>45J7918</div> <div>41N5620</div> <div>45J7915</div> <div>43R1985</div> <div>45K1636</div> <div>55Y9275</div> <div>43R1765</div> <div>Acc Guide in pdf lenovo.com/accessoriesguide</div> <div>Other accessories at lenovo.com/accessories</div>
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• Adobe® Reader®			
• Windows Live™ Toolbar			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD±RW)			

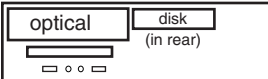
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Win7 preload	Global (G) GMP (P)	Avail date
M58e	7408-A2U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	320GB ²	DVD±RW	GMA	Pro 32	G P	Oct 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache			Small 
Implementation	Processor in LGA775 socket			
Memory	2GB std , 4GB max ^a , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available			
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			
SATA disk	320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	One internal speaker for business audio			
IEEE 1394	None			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	None			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosensing			
Preloaded operating system²⁰				
- Genuine Windows® 7 Professional 32				
Preloaded applications⁵ (only some listed)				
<ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)				
Accessories				
1GB PC2-6400 DDR2 UDIMM 41U2977				
2GB PC2-6400 DDR2 UDIMM 41U2978				
250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015				
500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990				
1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918				
Super Multi-Burner DL DVD±RW SATA Drive 41N5620				
DisplayPort™ to Single-link DVI-D Cable 45J7915				
ADD2 DVI-D Monitor Connection (HDCP) 43R1985				
ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636				
NVIDIA® Quadro® 256MB FX 370 LP 55Y9275				
NVIDIA Quadro 256MB NVS 290 43R1765				
More accessories on O-M58E sheet				
Acc Guide in pdf lenovo.com/accessoriesguide				
Other accessories at lenovo.com/accessories				
Security				
<ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement				
Supports ThinkVantage® technologies				
GREENGUARD® certified RoHS-compliant				
Limited Warranty¹				
⇒ 3-year parts and labor				
⇒ International Warranty Service⁹				
⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)				
⇒ Onsite service upgrade options (in eligible locations):⁷				
<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)				
⇒ ThinkPlus services at lenovo.com/thinkplus/warranty				
⇒ Post warranty maintenance services available				
⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378				

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	ENERGY STAR 5.0	Vista preload	Vista logo	Global (G) GMP (P)	Avail date
M58e	7514-A2U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB ²	DVD±RW	GMA	ES50	Bus32	Basic	G P	Apr 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache			Small 																								
Implementation	Processor in FC-LGA8 package in LGA775 socket																											
Memory	2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available																											
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																											
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention																								
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																											
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																											
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																											
eSATA port	None																											
Diskette drive	None																											
Media reader	None																											
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																											
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																											
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																											
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																											
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																											
Speaker	One internal speaker for business audio																											
IEEE 1394	None																											
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																											
Intel AMT	None																											
Modem	None																											
Security chip	None																											
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																											
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																											
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																											
Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32				Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement Supports ThinkVantage® technologies Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant																								
Preloaded applications ⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)																												
Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>41N3015</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td>NVIDIA Quadro 256MB NVS 290</td><td>43R1765</td></tr><tr><td colspan="2">More accessories on O-M58E sheet</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories					1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275	NVIDIA Quadro 256MB NVS 290	43R1765	More accessories on O-M58E sheet	
1GB PC2-6400 DDR2 UDIMM	41U2977																											
2GB PC2-6400 DDR2 UDIMM	41U2978																											
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ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																											
NVIDIA® Quadro® 256MB FX 370 LP	55Y9275																											
NVIDIA Quadro 256MB NVS 290	43R1765																											
More accessories on O-M58E sheet																												
Limited Warranty ¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																												

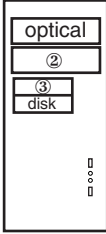
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Global Educ	Avail date
M58e	7258-B1U	4x4	Pentium E6300	2.80	2MB	2	1GB	250GB ²	None	DVD	GMA	XP Pro	None	Nov 09
M58e	7258-B2U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro	None	Nov 09
M58e	7258-B3U	4x4	Pentium E6300	2.80	2MB	2	3GB	500GB	None	DVD±RW	GMA	XP Pro	None	Nov 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E6300 with dual-core , 1066MHz system bus, and 2MB L2 cache Processor in LGA775 socket			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>Bay ①</div><div>Bay ②</div><div>Bay ③</div><div>Bay ④</div></div>
Implementation				
Memory	1GB, 2GB, or 3GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available			
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB or 3GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm, vibration dampening			Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement <div>Slot 1: half-length,full-height, PCI Express x16 (75w max)</div> <div>Slot 2: half-length,full-height, PCI Express x1</div> <div>Slot 3: half-length,full-height, 32-bit PCI 2.3</div> <div>Slot 4: half-length,full-height, 32-bit PCI 2.3</div>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	One internal speaker for business audio			
IEEE 1394	None			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	None			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, manual switch			
Preloaded operating system²⁰				
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional				
Preloaded applications⁵ (only some listed)				
• Rescue and Recovery™				
• Client Security Solution™				
• ThinkVantage Productivity Center				
• ThinkVantage System Update				
• ThinkVantage Power Manager				
• McAfee® VirusScan® Plus (30 days of virus definitions)				
• Lenovo System Toolbox				
• Adobe® Reader®				
• Windows Live™ Toolbar				
• Microsoft® Office 2007 Trial (60-day)				
• Roxio® Creator® Business Edition (DVD±RW)				
• Roxio MyDVD® (DVD±RW)				
• Corel® WinDVD® (DVD, DVD±RW)				
Accessories				
1GB PC2-6400 DDR2 UDIMM 41U2977				
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500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990				
1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918				
DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618				
Super Multi-Burner DL DVD±RW SATA Drive 41N5620				
Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675				
DisplayPort™ to Single-link DVI-D Cable 45J7915				
ADD2 DVI-D Monitor Connection (HDCP) 43R1985				
ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636				
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)45K1635				
NVIDIA Quadro® 256MB NVS 290 43R1765				
More accessories on O-M58E sheet				
Acc Guide in pdf lenovo.com/accessoriesguide				
Other accessories at lenovo.com/accessories				
Limited Warranty¹				
⇒ 1-year parts and labor				
⇒ International Warranty Service ⁹				
⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)				
⇒ Onsite service upgrade options (in eligible locations): ⁷				
• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9189)				
• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9187)				
• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9190)				
• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9188)				
• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9191)				
⇒ ThinkPlus services at lenovo.com/thinkplus/warranty				
⇒ Post warranty maintenance services available				
⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378				

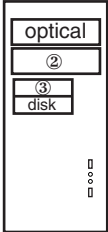
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7258-D3U	4x4	Celeron E3200	2.40	1MB	2	1GB	250GB ²	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7258-D2U	4x4	Pentium E5400	2.70	2MB	2	2GB	250GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7258-D1U	4x4	Pentium E5400	2.70	2MB	2	3GB	320GB	None	DVD±RW	GMA	Pro 32	None	Jan 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Celeron® Processor E3200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache Processor in LGA775 socket		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention		
Implementation	Processor in LGA775 socket				
Memory	1GB, 2GB, or 3GB std. , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available				
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 253MB [<i>1GB models</i>], 765MB [<i>2GB models</i>], or 1277MB [<i>3GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length,full-height, PCI Express x16 (75w max) Slot 2: half-length,full-height, PCI Express x1 Slot 3: half-length,full-height, 32-bit PCI 2.3 Slot 4: half-length,full-height, 32-bit PCI 2.3		
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar				
eSATA port	None				
Diskette drive	None				
Media reader	None				
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)				
Audio	High Definition (HD) Audio, Realtek® ALC662 codec				
Speaker	One internal speaker for business audio				
IEEE 1394	None				
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®				
Intel AMT	None				
Modem	None				
Security chip	None				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo				
Power supply	280 watts with variable speed fan, manual switch				
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			Accessories		
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio™ Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)			1GB PC2-6400 DDR2 UDIMM 41U2977 2GB PC2-6400 DDR2 UDIMM 41U2978 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675 DisplayPort™ to Single-link DVI-D Cable 45J7915 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® GeForce® 9500GT 512MB (DP, DVI)45K1635 NVIDIA Quadro® 256MB NVS 290 43R1765 More accessories on O-M58E sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		
			Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement		
			Supports ThinkVantage® technologies		
			GREENGUARD® certified RoHS-compliant		
			Limited Warranty¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9189)• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9187)• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9190)• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9188)• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9191)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378		

ThinkCentre® M58e Tower (7268) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Chassis intr switch	Preload	Global Educ	Avail date
M58e	7268-D2U	4x4	Pentium E5400	2.70	2MB	2	1GB	250GB ²	None	DVD	GMA		XP Pro	None	Jan 10
M58e	7268-D1U	4x4	Pentium E5400	2.70	2MB	2	2GB	250GB	None	DVD±RW	GMA		XP Pro	None	Jan 10
M58e	7268-C3U	4x4	Pentium E6300	2.80	2MB	2	1GB	250GB	None	DVD	GMA	Switch	XP Pro	None	Nov 09
M58e	7268-C4U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	Switch	XP Pro	None	Nov 09
M58e	7268-C5U	4x4	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	None	DVD±RW	GMA		XP Pro	None	Nov 09
M58e	7268-C6U	4x4	Core 2 Quad Q9400	2.66	6MB	4	3GB	500GB	None	DVD±RW	GMA		XP Pro	None	Nov 09
M58e	7268-E1U	4x4	Core 2 Quad Q9500	2.83	6MB	4	3GB	500GB	None	DVD±RW	GMA		XP Pro	None	Mar 10
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• These models have a 3-year limited warranty¹															
Positioning	Mainstream enterprise stability and manageability									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 					
Processor	Intel® Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Pentium Processor E6300 with dual-core, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q9400 or Q9500 with quad-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket														
Implementation										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk					
Memory	1GB, 2GB, or 3GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; Italics: standard memory in both sockets; no sockets avail; Non-Italics: standard memory in one socket; one socket available														
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 512MB [1GB models], 1GB [2GB or 3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter									Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3					
SATA disk	250GB, 320GB, or 500GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement• Some: Chassis intrusion switch					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7														
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive														
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar														
eSATA port	None														
Diskette drive	None														
Media reader	None														
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Realtek® ALC662 codec														
Speaker	One internal speaker for business audio														
IEEE 1394	None														
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®														
Intel AMT	None														
Modem	None														
Security chip	None														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch														
Preloaded operating system²⁰				Accessories											
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional				1GB PC2-6400 DDR2 UDIMM 41U2977											
				2GB PC2-6400 DDR2 UDIMM 41U2978											
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990											
				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918											
				DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618											
				Super Multi-Burner DL DVD±RW SATA Drive 41N5620											
				Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675											
				DisplayPort™ to Single-link DVI-D Cable 45J7915											
				ADD2 DVI-D Monitor Connection (HDCP) 43R1985											
				ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636											
				NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635											
				NVIDIA Quadro® 256MB NVS 290 43R1765											
				More accessories on O-M58E sheet											
				Acc Guide in pdf lenovo.com/accessoriesguide											
				Other accessories at lenovo.com/accessories											

See footnotes for important warranty information

US model announced March 2, 2010; previous models on November 3 or December 15, 2009

US models withdrawn effective January or April 2010

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(MIAM3-10) March 2010

ThinkCentre® M58e Tower (7268) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7268-D3U	4x4	Pentium E5400	2.70	2MB	2	1GB	250GB ²	None	DVD	GMA	Pro 32	None	Jan 10
M58e	7268-D4U	4x4	Pentium E5400	2.70	2MB	2	2GB	250GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7268-D5U	4x4	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7268-D6U	4x4	Core 2 Quad Q9400	2.66	6MB	4	3GB	500GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7268-E2U	4x4	Core 2 Quad Q9500	2.83	6MB	4	3GB	500GB	None	DVD±RW	GMA	Pro 32	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5400 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q9400 or Q9500 with quad-core , 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>Bay ④</div></div>																										
Implementation				Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk																										
Memory	1GB, 2GB, or 3GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available			Slot 1: half-length,full-height, PCI Express x16 (75w max) Slot 2: half-length,full-height, PCI Express x1 Slot 3: half-length,full-height, 32-bit PCI 2.3 Slot 4: half-length,full-height, 32-bit PCI 2.3																										
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 253MB [1GB models], 765MB [2GB models], or 1277MB [3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																													
SATA disk	250GB, 320GB, or 500GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																													
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																													
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																													
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																													
eSATA port	None																													
Diskette drive	None																													
Media reader	None																													
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																													
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																													
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																													
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																													
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																													
Speaker	One internal speaker for business audio																													
IEEE 1394	None																													
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																													
Intel AMT	None																													
Modem	None																													
Security chip	None																													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																													
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																													
Power supply	280 watts with variable speed fan, manual switch																													
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32				Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>DisplayPort™ to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr></table> <p>More accessories on O-M58E sheet</p> <p>Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</p>			1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort™ to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765
1GB PC2-6400 DDR2 UDIMM	41U2977																													
2GB PC2-6400 DDR2 UDIMM	41U2978																													
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																													
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ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																													
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																													
NVIDIA Quadro® 256MB NVS 290	43R1765																													
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)																														

See footnotes for important warranty information

US model announced March 2, 2010; previous models on January 12, 2010

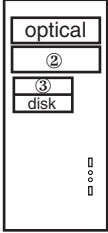
US model withdrawn effective April 2010

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(MIAM3-16) March 2010

	Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	Media reader	SATA disk	2nd Disk Bay	SATA optical	Graphics	FireWire adapter	Vista preload	Global Educ	Avail date
⚡	M58e	7270-A3U	4x4	Pentium E2220	2.40	1MB	2	2GB		160GB ²	No	DVD±RW	GMA		Bus32	No	Apr 09
⚡	M58e	7270-A2U	4x4	Core 2 Duo E7300	2.66	3MB	2	2GB		160GB	No	DVD±RW	GMA		Bus32	No	Apr 09
⚡	M58e	7270-A1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB		160GB	No	DVD±RW	GMA		Bus32	No	Apr 09
⚡	M58e	7270-A4U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	25-in-1	160GB	No	DVD±RW	GMA	1394	Bus32	No	Apr 09














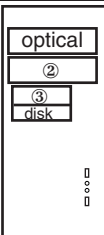
• **These models have a 1-year limited warranty¹**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E2220 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Tower																								
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		• Business black color; metal case • 6.9" W X 17.3" D X 15.8" H • 175mm W X 440mm D X 402mm H • 24.7 lb (11.2 kg) in max configuration • Handle on top front • Toolless cover removal • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention																								
Memory	2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, opt reader/diskette* Bay ④ 3.5", 1" high, no access, std disk * occupied by media reader in some models																								
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3** Slot 4: half-length, full-height, 32-bit PCI 2.3 ** occupied by FireWire adapter in some models																								
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																								
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																										
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors																										
eSATA port	None																										
Diskette drive	None		Supports ThinkVantage® technologies																								
Media reader	<i>Some</i> : 25-in-1 media reader, internal USB 2.0																										
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)					GREENGUARD® certified RoHS-compliant																					
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																										
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																										
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																										
Speaker	One internal speaker for business audio		Limited Warranty¹ ⇒ 1-year parts and labor ⇒ International Warranty Service⁹ ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ Onsite service upgrade options (in eligible locations):⁷ <ul style="list-style-type: none">• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9189)• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9187)• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9190)• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9188)• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9191) ⇒ ThinkPlus services at lenovo.com/thinkplus/warranty ⇒ Post warranty maintenance services available ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																								
IEEE 1394	<i>Some</i> : FireWire PCI adapter / IEEE 1394 FireWire 400 (dual 6-pin ports on rear; 1394-1995 standard)																										
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																										
Intel AMT	None																										
Modem	None																										
Security chip	None		Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Business 32◇ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)																								
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																										
Power supply	280 watts with variable speed fan, manual switch																										
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Business 32◇ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)		Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>41N3015</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr></table> More accessories on O-M58E sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765
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NVIDIA Quadro® 256MB NVS 290	43R1765																										

See footnotes for important warranty information

US models announced March 10, 2009

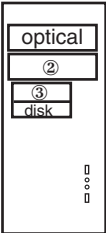
⚡ US models withdrawn effective June, August, or December 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Global Educ	Avail date																																																																																																																																																																																																																																																															
	M58e	7298-F2U	4x4	Pentium E5200	2.50	2MB	2	1GB	160GB ²	None	DVD	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-C3U	4x4	Pentium E5300	2.60	2MB	2	1GB	160GB	None	DVD	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-C4U	4x4	Pentium E5300	2.60	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-C5U	4x4	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	None	DVD	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-C6U	4x4	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-C7U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-C8U	4x4	Core 2 Duo E8400	3.00	6MB	2	1GB	160GB	None	DVD±RW	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-D1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
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	M58e	7298-C9U	4x4	Core 2 Duo E8500	3.16	6MB	2	1GB	250GB	None	DVD±RW	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-D2U	4x4	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-F9U	4x4	Core 2 Quad Q8200	2.33	4MB	4	2GB	250GB	None	DVD±RW	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
	M58e	7298-G1U	4x4	Core 2 Quad Q9400	2.66	6MB	4	2GB	250GB	None	DVD±RW	GMA	XP Pro	Apr 09																																																																																																																																																																																																																																																															
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Positioning	Mainstream enterprise stability and manageability								Tower																																																																																																																																																																																																																																																																				
Processor	Intel® Pentium® Processor E5200 or E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 or E8500 with dual-core, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core, 1333MHz system bus, and 6MB L2 cache								<ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 																																																																																																																																																																																																																																																																				
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket								Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk																																																																																																																																																																																																																																																																				
Memory	1GB or 2GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available																																																																																																																																																																																																																																																																												
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter								Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																																																																																																																																																																																																																																																																				
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts								Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																																																																																																																																																																																																																																																																				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																																																																																																																																																																																																																																																												
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																																																																																																																																																																																																																																																																												
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																																																																																																																																																																																																																																												
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																																																																																																																																																																																																																																																																												
eSATA port	None								Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)➤ Other ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																																																																																																																																																																																																																																																				
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Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																																																																																																																																																																																																																																												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																																																																																																																																																																																																																																																												
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<table><tr><td colspan="5">Preloaded operating system²⁰</td><td colspan="10">Accessories</td></tr><tr><td colspan="5">- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)</td><td colspan="5">1GB PC2-6400 DDR2 UDIMM</td><td colspan="5">41U2977</td></tr><tr><td colspan="5"></td><td colspan="5">2GB PC2-6400 DDR2 UDIMM</td><td colspan="5">41U2978</td></tr><tr><td colspan="5"></td><td colspan="5">500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td colspan="5">43R1990</td></tr><tr><td colspan="5"></td><td colspan="5">1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td colspan="5">45J7918</td></tr><tr><td colspan="5">Preloaded applications⁵ (only some listed)</td><td colspan="5">Super Multi-Burner DL DVD±RW SATA Drive</td><td colspan="5">41N5620</td></tr><tr><td colspan="5">• <i>Some:</i> Education software</td><td colspan="5">Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td colspan="5">45K1675</td></tr><tr><td colspan="5">- VitalSource Library School Edition</td><td colspan="5">DisplayPort to Single-link DVI-D Cable</td><td colspan="5">45J7915</td></tr><tr><td colspan="5">- Adobe® Elements</td><td colspan="5">ADD2 DVI-D Monitor Connection (HDCP)</td><td colspan="5">43R1985</td></tr><tr><td colspan="5">- Photoshop Elements 7</td><td colspan="5">ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td colspan="5">45K1636</td></tr><tr><td colspan="5">- Premiere Elements 7</td><td colspan="5">NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td colspan="5">45K1635</td></tr><tr><td colspan="5">• Rescue and Recovery™</td><td colspan="5">NVIDIA Quadro® 256MB NVS 290</td><td colspan="5" rowspan="7">43R1765</td></tr><tr><td colspan="5">• McAfee® VirusScan® Plus (30-day)</td><td colspan="10">More accessories on O-M58E sheet</td></tr><tr><td colspan="5">• Microsoft® Office 2007 Trial (60-day)</td><td colspan="10">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="5">• Roxio® Creator® Business Edition (DVD±RW)</td><td colspan="10">Other accessories at lenovo.com/accessories</td></tr><tr><td colspan="5">• Roxio MyDVD® (DVD±RW)</td><td colspan="10"></td></tr><tr><td colspan="5">• Corel® WinDVD® (DVD, DVD±RW)</td><td colspan="10"></td></tr></table>															Preloaded operating system²⁰					Accessories										- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)					1GB PC2-6400 DDR2 UDIMM					41U2977										2GB PC2-6400 DDR2 UDIMM					41U2978										500GB SATA 3.0Gb/s Disk (7200 rpm)					43R1990										1TB SATA 3.0Gb/s Disk (7200 rpm)					45J7918					Preloaded applications⁵ (only some listed)					Super Multi-Burner DL DVD±RW SATA Drive					41N5620					• <i>Some:</i> Education software					Blu-ray™ Burner SATA 1.5Gb/s Drive					45K1675					- VitalSource Library School Edition					DisplayPort to Single-link DVI-D Cable					45J7915					- Adobe® Elements					ADD2 DVI-D Monitor Connection (HDCP)					43R1985					- Photoshop Elements 7					ATI™ Radeon™ HD 3470 256MB (DP, VGA)					45K1636					- Premiere Elements 7					NVIDIA® GeForce® 9500GT 512MB (DP, DVI)					45K1635					• Rescue and Recovery™					NVIDIA Quadro® 256MB NVS 290					43R1765					• McAfee® VirusScan® Plus (30-day)					More accessories on O-M58E sheet										• Microsoft® Office 2007 Trial (60-day)					Acc Guide in pdf lenovo.com/accessoriesguide										• Roxio® Creator® Business Edition (DVD±RW)					Other accessories at lenovo.com/accessories										• Roxio MyDVD® (DVD±RW)															• Corel® WinDVD® (DVD, DVD±RW)														
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See footnotes for important warranty information

US models announced March 10 or March 24, 2009

⚡ US models withdrawn effective October 2009, December 2009, or April 2010

	Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Global Educ	Avail date
⚡	M58e	7298-H9U	4x4	Pentium E5300	2.60	2MB	2	2GB	160GB ²	None	DVD±RW	GMA	XP Pro	Educ	Jul 09
⚡	M58e	7298-H6U	4x4	Core 2 Duo E7500	2.93	3MB	2	1GB	160GB	None	DVD	GMA	XP Pro		Jul 09
⚡	M58e	7298-H8U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Educ	Jul 09
	M58e	7298-H7U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro		Jul 09
• These models have a 3-year limited warranty ¹															
Positioning Processor		Mainstream enterprise stability and manageability Intel® Pentium® Processor E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache Implementation Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket								Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention					
Implementation										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk					
Memory		1GB or 2GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; Non-italics: standard memory in one socket; one socket available								Slot 1: half-length,full-height, PCI Express x16 (75w max) Slot 2: half-length,full-height, PCI Express x1 Slot 3: half-length,full-height, 32-bit PCI 2.3 Slot 4: half-length,full-height, 32-bit PCI 2.3					
Graphics		Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 512MB [1GB models], 1GB [2GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter													
SATA disk		160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening													
SATA controller		Serial ATA, SATA 3.0Gb/s, integrated in ICH7													
SATA DVD		Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive													
SATA DVD±RW		Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive													
SATA cables		Two SATA cables (each 1-drop to device), four SATA connectors													
eSATA port		None													
Diskette drive		None													
Media reader		None													
Chipset		Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)													
Front ports		Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)													
Rear ports		Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)													
Rear audio ports		Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)													
Audio		High Definition (HD) Audio, Realtek® ALC662 codec													
Speaker		One internal speaker for business audio													
IEEE 1394		None													
Ethernet		Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®													
Intel AMT		None													
Modem		None													
Security chip		None													
Keyboard		Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo													
Mouse		Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo													
Power supply		280 watts with variable speed fan, manual switch												Supports ThinkVantage® technologies	
Preloaded operating system ²⁰		Accessories												GREENGUARD® certified RoHS-compliant	
- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)		1GB PC2-6400 DDR2 UDIMM 2GB PC2-6400 DDR2 UDIMM 250GB SATA 3.0Gb/s Disk (7200 rpm) 500GB SATA 3.0Gb/s Disk (7200 rpm) 1TB SATA 3.0Gb/s Disk (7200 rpm) DVD-ROM DL SATA 1.5Gb/s 16X-48X Max Super Multi-Burner DL DVD±RW SATA Drive Blu-ray™ Burner SATA 1.5Gb/s Drive DisplayPort to Single-link DVI-D Cable ADD2 DVI-D Monitor Connection (HDCP) ATI™ Radeon™ HD 3470 256MB (DP, VGA) NVIDIA® GeForce® 9500GT 512MB (DP, DVI) NVIDIA Quadro® 256MB NVS 290 More accessories on O-M58E sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories								41U2977 41U2978 41N3015 43R1990 45J7918 41N5618 41N5620 45K1675 45J7915 43R1985 45K1636 45K1635 43R1765				Limited Warranty ¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)➤ ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378	
Preloaded applications ⁵															
• Some: Education software															
- VitalSource Library School Edition															
- Adobe® Elements															
- Photoshop Elements 7															
- Premiere Elements 7															
• Rescue and Recovery™															
• Client Security Solution™															
• ThinkVantage Productivity Center															
• ThinkVantage System Update															
• McAfee® VirusScan® Plus (30 days of virus definitions)															
• Lenovo System Toolbox															
• Adobe Reader®															
• Windows Live™ Toolbar															
• Microsoft® Office 2007 Trial (60-day)															
• Roxio® Creator® Business Edition (DVD±RW)															
• Roxio MyDVD® (DVD±RW)															
• Corel® WinDVD® (DVD, DVD±RW)															

See footnotes for important warranty information

US models announced July 7, 2009

⚡ US models withdrawn effective December 2009

ThinkCentre® M58e Tower (7298) - XP with Win 7 License

Personal Systems Reference (PSREF)

	Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Global Educ	Avail date
3-yr	M58e	7298-N1U	4x4	Pentium E6300	2.80	2MB	2	1GB	250GB ²	None	DVD	GMA	XP Pro		Oct 09
	M58e	7298-N2U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro		Oct 09
	M58e	7298-N3U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro	Educ	Oct 09
	M58e	7298-M9U	4x4	Core 2 Quad Q8400	2.66	4MB	4	2GB	250GB	None	DVD±RW	GMA	XP Pro		Oct 09

- *These models have a 3-year limited warranty¹*

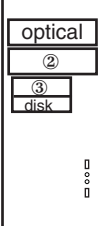
Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E6300 with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Quad Processor Q8400 with quad-core, Virtualization Technology, 1333MHz system bus, and 4MB L2 cache Processor in LGA775 socket		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>④</div></div>
Implementation			
Memory	1GB or 2GB std , 4GB max ⁵ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar		
eSATA port	None		Supports ThinkVantage® technologies
Diskette drive	None		
Disk reader	None		
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		GREENGUARD® certified RoHS-compliant
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		Limited Warranty ¹ <ul style="list-style-type: none">⇨ 3-year parts and labor⇨ International Warranty Service⁹⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇨ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇨ ThinkPlus services at lenovo.com/thinkplus/warranty⇨ Post warranty maintenance services available⇨ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, manual switch		
Preloaded operating system ²⁰		Accessories	
<ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• <i>Some:</i> Education software- VitalSource Library School Edition- Adobe® Elements<ul style="list-style-type: none">– Photoshop Elements 7– Premiere Elements 7• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)		1GB PC2-6400 DDR2 UDIMM 41U2977	
		2GB PC2-6400 DDR2 UDIMM 41U2978	
		250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015	
		500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990	
		1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918	
		DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618	
		Super Multi-Burner DL DVD±RW SATA Drive 41N5620	
		Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675	
		DisplayPort™ to Single-link DVI-D Cable 45J7915	
		ADD2 DVI-D Monitor Connection (HDCP) 43R1985	
		ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636	
		NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635	
		NVIDIA Quadro® 256MB NVS 290 43R1765	
More accessories on O-M58E sheet			
Acc Guide in pdf lenovo.com/accessoriesguide			
Other accessories at lenovo.com/accessories			

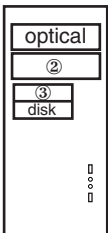
See footnotes for important warranty information
US models announced October 22, 2009
% < US model withdrawn effective December 2009

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(MIAM3-4) October 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7298-Q1U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB ²	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7298-Q2U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7298-Q3U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB	None	DVD±RW	GMA	Pro 32	None	Jan 10

- *These models have a 3-year limited warranty¹*

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E6300 with dual-core , 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core , 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 		
Implementation	Processor in LGA775 socket			Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		
Memory	2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available			Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement		
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7					
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive					
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors					
eSATA port	None					
Diskette drive	None					
Media reader	None					
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)			Supports ThinkVantage® technologies		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)					
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			GREENGUARD® certified RoHS-compliant Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)					
Audio	High Definition (HD) Audio, Realtek® ALC662 codec					
Speaker	One internal speaker for business audio					
IEEE 1394	None					
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®					
Intel AMT	None					
Modem	None					
Security chip	None					
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo					
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo					
Power supply	280 watts with variable speed fan, manual switch					
Preloaded operating system²⁰				Accessories		
- Genuine Windows® 7 Professional 32				1GB PC2-6400 DDR2 UDIMM 41U2977		
Preloaded applications⁵ (only some listed)				2GB PC2-6400 DDR2 UDIMM 41U2978		
• Rescue and Recovery™				250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015		
• Password Manager				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
• ThinkVantage System Update				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918		
• ThinkVantage Power Manager				Super Multi-Burner DL DVD±RW SATA Drive 41N5620		
• ThinkVantage Toolbox				Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675		
• Lenovo Online Data Backup				DisplayPort™ to Single-link DVI-D Cable 45J7915		
• Norton™ Internet Security 2009 (30 days of virus definitions)				ADD2 DVI-D Monitor Connection (HDCP) 43R1985		
• Adobe® Reader®				ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636		
• Adobe Flash® Player				NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635		
• Skype™ for Windows				NVIDIA Quadro® 256MB NVS 290 43R1765		
• Microsoft® Office 2007 Trial (60-day)				More accessories on O-M58E sheet		
• Roxio® Creator® Business Edition (DVD±RW)				Acc Guide in pdf lenovo.com/accessoriesguide		
• Roxio MyDVD® (DVD±RW)				Other accessories at lenovo.com/accessories		

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 5.0	Preload	Global Educ	Avail date
M58e	7847-A2U	4x4	Pentium E6300	2.80	2MB	2	1GB	250GB ²	None	DVD	GMA	ES50	XP Pro	None	Oct 09
M58e	7847-A3U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	ES50	XP Pro	None	Oct 09
M58e	7847-A4U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	None	DVD±RW	GMA	ES50	XP Pro	None	Oct 09
M58e	7847-A5U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB	None	DVD±RW	GMA	ES50	XP Pro	None	Oct 09
M58e	7847-A7U	4x4	Core 2 Quad Q9400	2.66	6MB	4	3GB	320GB	None	DVD±RW	GMA	ES50	XP Pro	None	Oct 09
• These models have a 3-year limited warranty ¹															
Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E6300 with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, Virtualization Technology, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention					
Implementation	Processor in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk					
Memory	1GB, 2GB, or 3GB std. 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available									Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3					
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 512MB [1GB models], 1GB [2GB or 3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter												Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement		
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts												Supports ThinkVantage® technologies		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7														
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive												Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar												Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)➤ ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378		
eSATA port	None														
Diskette drive	None														
Media reader	None														
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Realtek® ALC662 codec														
Speaker	One internal speaker for business audio														
IEEE 1394	None														
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®														
Intel AMT	None														
Modem	None														
Security chip	None														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo														
Power supply	280 watts with variable speed fan, autosensing, 85% PSU														
Preloaded operating system²⁰				Accessories											
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)				1GB PC2-6400 DDR2 UDIMM				41U2977							
				2GB PC2-6400 DDR2 UDIMM				41U2978							
				250GB SATA 3.0Gb/s Disk (7200 rpm)				41N3015							
				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990							
				1TB SATA 3.0Gb/s Disk (7200 rpm)				45J7918							
				DVD-ROM DL SATA 1.5Gb/s 16X-48X Max				41N5618							
				Super Multi-Burner DL DVD±RW SATA Drive				41N5620							
				Blu-ray™ Burner SATA 1.5Gb/s Drive				45K1675							
				DisplayPort™ to Single-link DVI-D Cable				45J7915							
				ADD2 DVI-D Monitor Connection (HDCP)				43R1985							
				ATI™ Radeon™ HD 3470 256MB (DP, VGA)				45K1636							
				NVIDIA® GeForce® 9500GT 512MB (DP, DVI)				45K1635							
				NVIDIA Quadro® 256MB NVS 290				43R1765							
				More accessories on O-M58E sheet											
				Acc Guide in pdf lenovo.com/accessoriesguide											
				Other accessories at lenovo.com/accessories											

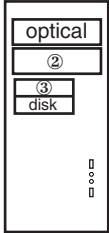
See footnotes for important warranty information
US models announced October 22, 2009

≡ US model withdrawn effective April 2010

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(MIAM3-5) October 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Vista logo	Global (G) GMP (P)	Avail date
M58e	7307-A1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB ²	None	DVD±RW	GMA	Business32	Basic	G P	Apr 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 
Implementation	Processor in FC-LGA8 package in LGA775 socket			
Memory	2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available			
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			Bay ① 5.25", 1.6" high, access, std optical
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			Bay ② 5.25", 1.6" high, access, open
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			Bay ③ 3.5", 1" high, access, open (reader/diskette)
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors			Bay ④ 3.5", 1" high, no access, std disk
eSATA port	None			Slot 1: half-length, full-height, PCI Express x16 (75w max)
Diskette drive	None			Slot 2: half-length, full-height, PCI Express x1
Media reader	None			Slot 3: half-length, full-height, 32-bit PCI 2.3
				Slot 4: half-length, full-height, 32-bit PCI 2.3
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)			Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	One internal speaker for business audio			
IEEE 1394	None			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	None			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, manual switch			
Preloaded operating system ²⁰				Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
- Genuine Windows® Vista® Business 32				
Preloaded applications ⁵				
• Rescue and Recovery™				
• Client Security Solution™				
• ThinkVantage Productivity Center				
• ThinkVantage System Update				
• ThinkVantage Power Manager				
• McAfee® VirusScan® Plus (30 days of virus definitions)				
• Lenovo System Toolbox				
• Adobe® Reader®				
• Windows Live™ Toolbar				
• Microsoft® Office 2007 Trial (60-day)				
• Roxio® Creator® Business Edition (DVD±RW)				
• Roxio MyDVD® (DVD±RW)				
• Corel® WinDVD® (DVD±RW)				
Accessories				
1GB PC2-6400 DDR2 UDIMM 41U2977				
2GB PC2-6400 DDR2 UDIMM 41U2978				
250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015				
500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990				
1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918				
Super Multi-Burner DL DVD±RW SATA Drive 41N5620				
Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675				
DisplayPort to Single-link DVI-D Cable 45J7915				
ADD2 DVI-D Monitor Connection (HDCP) 43R1985				
ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636				
NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635				
NVIDIA Quadro® 256MB NVS 290 43R1765				
More accessories on O-M58E sheet				
Acc Guide in pdf lenovo.com/accessoriesguide				
Other accessories at lenovo.com/accessories				

- *This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty*

See footnotes for important warranty information
US model announced October 22, 2009

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Partial list of accessories supported on ThinkCentre M58e

Memory

1GB PC2-6400 DDR2 UDIMM	41U2977	ann 09/26/06
1GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0549	ann 03/17/09
2GB PC2-6400 DDR2 UDIMM	41U2978	ann 01/08/08
2GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0550	ann 03/17/09

Optical

All:

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Tower 7268/7270/7298/7491/7307/7508/7847/7843/7258 support:

Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ann 03/31/09
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Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Graphics

Small 7269/7279/7303/7506/7408/7514/7259 support Low Profile 35 watts max:

DisplayPort™ to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® Quadro® 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB FX 370 Low-Profile	55Y9275	ann 07/28/09
NVIDIA GeForce® 310 DMS59(2-DVI, 2-VGA)	57Y4167	ann 03/02/10

Tower 7268/7270/7298/7491/7307/7508/7847/7843/7258 support 75 watts max:

DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA Quadro 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA GeForce 9500GT 512MB (DP, DVI)	45K1635	ann 11/18/08
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

⁵⁰ Attaches to the ThinkCentre compatible DisplayPort graphics card.More information at www.lenovo.com/support/graphiccards

Keyboard

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Preferred Pro Full Size PS/2 Keyboard	31P7415	ann 06/04/02
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.More information at www.lenovo.com/support/keyboards

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08

More information at www.lenovo.com/support/mice

Multimedia

ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

⁵⁶ Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

More information at www.lenovo.com/thinkvisionMonitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/desktopaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkCentre M58 Eco Ultra Small



Lenovo ThinkCentre M58 Eco Ultra Small
with dual Lenovo ThinkVision monitors



Lenovo ThinkCentre M58 Small



Lenovo ThinkCentre M58 Small
with Lenovo ThinkVision monitor



Lenovo ThinkCentre M58 Tower



Lenovo ThinkCentre M58 Tower
with dual Lenovo ThinkVision monitors

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date
M58	8820-ANU	1x2	Core 2 Duo E7500	2.93	2	2GB	250GB ^b	DVD±RW	GMA	VGA, DP	None	ES50	None	XP Pro	Nov 09

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty¹**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> Intel® Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache Processor in LGA775 socket		Eco Ultra Small <div><div>optical</div><div>disk</div></div>	
Implementation	Processor in LGA775 socket			
Memory	2GB std , 4GB max ^a , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		Slot 1: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation	
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar			
eSATA port	None		Supports ThinkVantage® technologies	
Diskette drive	None			
Media reader	None			
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378	
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	None			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU			
Accessories				
1GB PC3-8500 DDR3 SODIMM (notebook)		43R1987		
2GB PC3-8500 DDR3 SODIMM (notebook)		43R1988		
500GB SATA 3.0Gb/s Disk (7200 rpm)		43R1990		
1TB SATA 3.0Gb/s Disk (7200 rpm)		45J7918		
Super Multi-Burner DL DVD±RW SATA Drive		41N5620		
DisplayPort to Single-link DVI-D Cable		45J7915		
DisplayPort to VGA Monitor Cable		57Y4393		
Lenovo Vertical PC and Monitor Stand II		41R4474		
ThinkCentre Ultra Small Under Desk Mount		40Y8625		
More accessories on O-M58 sheet				
Acc Guide in pdf lenovo.com/accessoriesguide				
Other accessories at lenovo.com/accessories				

ThinkCentre® M58 Eco Ultra Small (8820) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)


Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
M58	8820-AQU	1x2	Core 2 Duo E7500	2.93	2	2GB	250GB ^b	DVD±RW	GMA	VGA, DP	None	ES50	None	Pro 32	None	Jan 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache Processor in LGA775 socket			Eco Ultra Small <div><div>optical</div><div>disk</div></div>																					
Implementation	Processor in LGA775 socket																								
Memory	2GB std, 4GB max ^a , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk																					
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display			Slot 1: Low Profile, 32-bit PCI 2.3																					
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement																					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support																								
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																								
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar																								
eSATA port	None			Supports ThinkVantage® technologies																					
Diskette drive	None																								
Media reader	None																								
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																								
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			<div>EPEAT™ Gold rating</div> <div>ENERGY STAR® 5.0-compliant</div> <div>GREENGUARD® certified</div> <div>RoHS-compliant</div> <div>Limited Warranty¹<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div>																					
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																								
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																								
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																								
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																								
Speaker	One internal speaker for business audio																								
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																								
Intel AMT	None																								
Modem	None																								
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																								
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			Supports ThinkVantage® technologies																					
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																								
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																								
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32																									
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)																									
Accessories <table><tr><td>1GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1987</td></tr><tr><td>2GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1988</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>Lenovo Vertical PC and Monitor Stand II</td><td>41R4474</td></tr><tr><td>ThinkCentre Ultra Small Under Desk Mount</td><td>40Y8625</td></tr><tr><td colspan="2">More accessories on O-M58 sheet</td></tr></table> <p>Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</p>				1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625	More accessories on O-M58 sheet			
1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987																								
2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988																								
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																								
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																								
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																								
DisplayPort to Single-link DVI-D Cable	45J7915																								
DisplayPort to VGA Monitor Cable	57Y4393																								
Lenovo Vertical PC and Monitor Stand II	41R4474																								
ThinkCentre Ultra Small Under Desk Mount	40Y8625																								
More accessories on O-M58 sheet																									

See footnotes for important warranty information
US model announced January 12, 2010

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Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Preload	Educ	Global	Avail date
✓	M58	7359-B5U	1x2	Pentium E5300	2.60	2	2GB	160GB ²	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro		Feb 09
✓	M58	7359-B8U	1x2	Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP		ES50	No	XP Pro		Apr 09
✓	M58	7359-B1U	1x2	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro		Feb 09
✓	M58	7359-B2U	1x2	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro		Feb 09
	M58	7359-B3U	1x2	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro		Feb 09
	M58	7359-B4U	1x2	Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro		Feb 09
✓	M58	7359-B6U	1x2	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	Bus32	Gbl	Feb 09
• These models have a 3-year limited warranty ¹																	
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E5300 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache										Eco Ultra Small						
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk		Slot 1: Low Profile, 32-bit PCI 2.3				
Memory	1GB or 2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-Italics</i> : standard memory in one socket; one socket available												<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation				
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (<i>XP Pro models</i> : up to 512MB [<i>1GB models</i>], 1GB [<i>2GB models</i>]; <i>Vista models</i> : up to 765MB [<i>2GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display <i>Some</i> : DisplayPort to Single-link DVI-D Cable																
DP dongle	<i>Some</i> : DisplayPort to Single-link DVI-D Cable																
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts												Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support																
SATA DVD	<i>Some</i> : DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																
SATA DVD±RW	<i>Some</i> : Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar																
eSATA port	None																
Diskette drive	None																
Media reader	None																
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																
Speaker	One internal speaker for business audio																
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																
Intel AMT	None																
Modem	None																
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																
Preloaded operating system²⁰							Accessories							Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378			
- <i>Some</i> : Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)							1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987										
- <i>Some</i> : Genuine Windows Vista Business 32							2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988										
✧ <i>Vista models</i> : Vista Premium logo							500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990										
Preloaded applications⁵ (all OSes)							1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918										
• Rescue and Recovery™							DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618										
• Client Security Solution™							Super Multi-Burner DL DVD±RW SATA Drive 41N5620										
• ThinkVantage Productivity Center							DisplayPort to Single-link DVI-D Cable 45J7915										
• ThinkVantage System Update							DisplayPort to VGA Monitor Cable 57Y4393										
• ThinkVantage Power Manager (Vista)							Lenovo Vertical PC and Monitor Stand II 41R4474										
• McAfee® VirusScan® Plus (30 days of virus definitions)							ThinkCentre Ultra Small Under Desk Mount 40Y8625										
• Lenovo System Toolbox							More accessories on O-M58 sheet										
• Adobe® Reader®							Acc Guide in pdf lenovo.com/accessoriesguide										
• Microsoft® Office 2007 Trial (60-day)							Other accessories at lenovo.com/accessories										
• Roxio® Creator® Business Edition (DVD±RW)																	
• Roxio MyDVD® (DVD±RW)																	
• Corel® WinDVD® (DVD, DVD±RW)																	

See footnotes for important warranty information

US models announced January 20 or April 7, 2009

✗ US models withdrawn effective October 2009 or April 2010

ThinkCentre® M58 Eco Ultra Small (7359) - XP with Win 7 License

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro Preload	Global Educ	Avail date
M58	7359-DUU	1x2	Pentium E6300	2.80	2	2GB	250GB ²	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Oct 09
M58	7359-DVU	1x2	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP		ES50	No	XP Pro	Oct 09
⚡ M58	7359-DWU	1x2	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro Educ	Oct 09

- *These models have a 3-year limited warranty¹*

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E6300 with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache		Eco Ultra Small <div><div>optical</div><div>disk</div><div></div></div>	
Implementation	Processor in LGA775 socket			
Memory	2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> DisplayPort to Single-link DVI-D Cable		<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation	
DP dongle				
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	None			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU			
Preloaded operating system²⁰		Accessories		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional		1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	
		2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	
		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
		DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	
		Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
		Lenovo Vertical PC and Monitor Stand II	41R4474	
		ThinkCentre Ultra Small Under Desk Mount	40Y8625	
		DisplayPort to Single-link DVI-D Cable	45J7915	
		DisplayPort to VGA Monitor Cable	57Y4393	
		More accessories on O-M58 sheet		
		Acc Guide in pdf lenovo.com/accessoriesguide		
		Other accessories at lenovo.com/accessories		
Preloaded applications⁵ (only some listed)				
• <i>Some:</i> Education software				
- VitalSource™ Library School Edition				
- Adobe® Elements				
- Photoshop Elements 6				
- Premiere Elements 4				
• Rescue and Recovery™				
• Client Security Solution™				
• ThinkVantage Productivity Center				
• ThinkVantage System Update				
• McAfee® VirusScan® Plus				
(30 days of virus definitions)				
• Lenovo System Toolbox				
• Adobe Reader®				
• Microsoft® Office 2007 Trial (60-day)				
• Roxio® Creator® Business Edition (DVD±RW)				
• Roxio MyDVD® (DVD±RW)				
• Corel® WinDVD® (DVD, DVD±RW)				
				Security
				<ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)- security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement
				Supports ThinkVantage® technologies
				EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant
				Limited Warranty¹
				⇒ 3-year parts and labor
				⇒ International Warranty Service⁹
				⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
				⇒ Onsite service upgrade options (in eligible locations):⁷
				• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)
				• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)
				• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)
				• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)
				• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)
				⇒ ThinkPlus services at lenovo.com/thinkplus/warranty
				⇒ Post warranty maintenance services available
				⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378

Name	Type-model	Slot x bay	Processor	GHz Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
M58	7359-F5U	1x2	Core 2 Duo E7500	2.93	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	Pro 32	None Jan 10

- **This model has a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache Processor in LGA775 socket			Eco Ultra Small <div><div>optical</div><div>disk</div></div>	
Implementation	Processor in LGA775 socket				
Memory	2GB std, 4GB max ⁹ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-Italics</i> : standard memory in one socket; one socket available			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display			Slot 1: Low Profile, 32-bit PCI 2.3	
DP dongle	DisplayPort to Single-link DVI-D Cable			<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation	
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar				
eSATA port	None				
Diskette drive	None			Supports ThinkVantage® technologies	
Media reader	None				
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)				
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)				
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec				
Speaker	One internal speaker for business audio				
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0				
Intel AMT	None				
Modem	None				
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo				
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU			Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378	
Preloaded operating system ²⁰		Accessories			
- Genuine Windows® 7 Professional 32		1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987		
Preloaded applications ⁵		2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988		
• Rescue and Recovery™		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990		
• Password Manager		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918		
• ThinkVantage System Update		Super Multi-Burner DL DVD±RW SATA Drive	41N5620		
• ThinkVantage Power Manager		Lenovo Vertical PC and Monitor Stand II	41R4474		
• ThinkVantage Toolbox		ThinkCentre Ultra Small Under Desk Mount	40Y8625		
• Lenovo Online Data Backup		DisplayPort to Single-link DVI-D Cable	45J7915		
• Norton™ Internet Security 2009 (30 days of virus definitions)		DisplayPort to VGA Monitor Cable	57Y4393		
• Adobe® Reader®		More accessories on O-M58 sheet			
• Adobe Flash® Player		Acc Guide in pdf lenovo.com/accessoriesguide			
• Microsoft® Office 2007 Trial (60-day)		Other accessories at lenovo.com/accessories			
• Roxio® Creator® Business Edition (DVD±RW)					
• Roxio MyDVD® (DVD±RW)					

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win 7 preload	Global (G) GMP (P)	Avail date
M58	7637-A2U	1x2	Core 2 Duo E7500	2.93	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	ES50	No	Pro 32	G P	Nov 09

- *This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty*

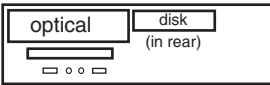
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache			Eco Ultra Small <div><div>optical</div><div>disk</div><div><div></div><div></div><div></div></div></div>	
Implementation	Processor in LGA775 socket				
Memory	2GB std, 4GB max ⁶ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display			Slot 1: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation	
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			<div>Security<ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement</div> <div>Supports ThinkVantage® technologies</div> <div>EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant</div> <div><div>Limited Warranty¹<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div>	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar				
eSATA port	None				
Diskette drive	None				
Media reader	None				
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)				
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)				
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec				
Speaker	One internal speaker for business audio				
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0				
Intel AMT	None				
Modem	None				
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo				
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU				
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32		Accessories			
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)		1GB PC3-8500 DDR3 SODIMM (notebook)		43R1987	
		2GB PC3-8500 DDR3 SODIMM (notebook)		43R1988	
		500GB SATA 3.0Gb/s Disk (7200 rpm)		43R1990	
		1TB SATA 3.0Gb/s Disk (7200 rpm)		45J7918	
		Super Multi-Burner DL DVD±RW SATA Drive		41N5620	
		DisplayPort to Single-link DVI-D Cable		45J7915	
		DisplayPort to VGA Monitor Cable		57Y4393	
		Lenovo Vertical PC and Monitor Stand II		41R4474	
		ThinkCentre Ultra Small Under Desk Mount		40Y8625	
		More accessories on O-M58 sheet			
		Acc Guide in pdf lenovo.com/accessoriesguide			
		Other accessories at lenovo.com/accessories			

ThinkCentre® M58 Small (8910) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHzCores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Chassis intr switch	Intel vPro	Preload	Global Educ	Avail date
M58	8910-APU	2x3	Pentium E5400	2.70	2	2GB	250GB ² DVD±RW	GMA	VGA, DP	None		No	XP Pro	No	Jan 10
M58	8910-ALU	2x3	Pentium E6300	2.80	2	2GB	250GB DVD±RW	GMA	VGA, DP	None	Switch	No	XP Pro	No	Nov 09
M58	8910-AMU	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB DVD±RW	GMA	VGA, DP	None		No	XP Pro	No	Nov 09
M58	8910-ATU	2x3	Core 2 Quad Q9500	2.83	4	4GB	320GB DVD±RW	GMA	VGA, DP	None		No	XP Pro	No	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

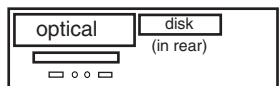
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Pentium Processor E6300 with dual-core, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q9500 with quad-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket			Small 																											
Implementation				Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3																											
Memory	2GB or 4GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available			<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																											
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display																														
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement• <i>Some:</i> Chassis intrusion switch																											
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support																														
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																														
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																														
eSATA port	One external SATA (eSATA) port																														
Diskette drive	None																														
Media reader	None																														
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																														
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																														
Speaker	One internal speaker for business audio																														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																														
Intel AMT	None																														
Modem	None																														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																														
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																														
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs																														
Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)			Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td colspan="2">More accessories on O-M58 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>			1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370 LP	55Y9275	More accessories on O-M58 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC3-8500 DDR3 UDIMM	45J5434																														
2GB PC3-8500 DDR3 UDIMM	45J5435																														
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																														
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Super Multi-Burner DL DVD±RW SATA Drive	41N5620																														
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ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																														
NVIDIA® Quadro® 256MB NVS 290	43R1765																														
NVIDIA Quadro 256MB FX 370 LP	55Y9275																														
More accessories on O-M58 sheet																															
Acc Guide in pdf lenovo.com/accessoriesguide																															
Other accessories at lenovo.com/accessories																															

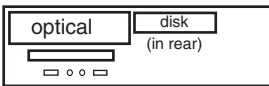
ThinkCentre® M58 Small (8910) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
M58	8910-AQU	2x3	Pentium E5400	2.70	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Jan 10
M58	8910-ARU	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Jan 10
M58	8910-AUU	2x3	Core 2 Quad Q9500	2.83	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Mar 10
M58	8910-ASU	2x3	Core 2 Duo E7500	2.93	2	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	Pro 64	None	Mar 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q9500 with quad-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket						Small  Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3	
Implementation							• Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation	
Memory	2GB or 4GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available							
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 765MB [2GB models] or 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display							
SATA disk	250GB or 320GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts						Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support							
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive							
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar							
eSATA port	One external SATA (eSATA) port							
Diskette drive	None							
Media reader	None							
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMC® SCH5617 Super I/O						Supports ThinkVantage® technologies	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)						GREENGUARD® certified RoHS-compliant	
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA							
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)							
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)							
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec						Limited Warranty ¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378	
Speaker	One internal speaker for business audio							
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0							
Intel AMT	None							
Modem	None							
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant							
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo							
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo							
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs							
Preloaded operating system²⁰ <ul style="list-style-type: none">- Some: Genuine Windows® 7 Professional 32- Some: Genuine Windows 7 Professional 64 Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)							Accessories <ul style="list-style-type: none">1GB PC3-8500 DDR3 UDIMM 45J54342GB PC3-8500 DDR3 UDIMM 45J5435500GB SATA 3.0Gb/s Disk (7200 rpm) 43R19901TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918Super Multi-Burner DL DVD±RW SATA Drive 41N5620DisplayPort to Single-link DVI-D Cable 45J7915DisplayPort to VGA Monitor Cable 57Y4393ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636NVIDIA® Quadro® 256MB NVS 290 43R1765NVIDIA Quadro 256MB FX 370 LP 55Y9275More accessories on O-M58 sheetAcc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories	

		Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date										
☞	M58	7360-D8U	2x3	Pentium E5300	2.60	2	1GB	160GB ²	DVD	GMA	VGA, DP	DP-to-DVI-D	No	XP Pro	Apr 09										
☞	M58	7360-BVU	2x3	Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09										
☞	M58	7360-BWU	2x3	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD	GMA	VGA, DP		No	XP Pro	Feb 09										
☞	M58	7360-D4U	2x3	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD±RW	GMA	VGA, DP		No	XP Pro	Feb 09										
☞	M58	7360-D1U	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09										
☞	M58	7360-D5U	2x3	Core 2 Duo E7400	2.80	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09										
☞	M58	7360-D2U	2x3	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD	GMA	VGA, DP		No	XP Pro	Feb 09										
☞	M58	7360-D3U	2x3	Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09										
☞	M58	7360-D6U	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09										
☞	M58	7360-D7U	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	Bus32 Gbl	Feb 09										
• These models have a 3-year limited warranty ¹																									
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Small															
Implementation										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)		Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3													
Memory	1GB or 2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available											* used in some models													
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory <i>(XP Pro:</i> up to 512MB <i>[1GB models]</i> , 1GB <i>[2GB models]</i> ; <i>Vista:</i> up to 765MB <i>[2GB models]</i>), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> ATI™ Radeon™ HD 3470 , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts <i>Some:</i> DisplayPort to Single-link DVI-D Cable									<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation															
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable																								
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts											Security													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support											<ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons													
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive											<ul style="list-style-type: none">• Power-on password• Administrator password													
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive											<ul style="list-style-type: none">• Hard disk password (user and master)• Boot sequence control													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar											<ul style="list-style-type: none">• Boot without diskette, keyboard• Serial port I/O control													
eSATA port	One external SATA (eSATA) port											<ul style="list-style-type: none">• Individual USB port disablement													
Diskette drive	None																								
Media reader	None																								
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O											Supports ThinkVantage® technologies													
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																								
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA											GREENGUARD® certified RoHS-compliant													
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																								
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																								
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																								
Speaker	One internal speaker for business audio																								
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																								
Intel AMT	None																								
Modem	None																								
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant											Limited Warranty¹													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo											<ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)													
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo											<ul style="list-style-type: none">➤ Onsite service upgrade options (in eligible locations):⁷													
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs											<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)													
Preloaded operating system²⁰			Accessories																						
- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)			1GB PC3-8500 DDR3 UDIMM			45J5434																			
			2GB PC3-8500 DDR3 UDIMM			45J5435																			
			500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990																			
			1TB SATA 3.0Gb/s Disk (7200 rpm)			45J7918																			
- <i>Some:</i> Genuine Windows Vista Business 32			DVD-ROM DL SATA 1.5Gb/s 16X-48X Max			41N5618																			
✦ <i>Vista models:</i> Vista Premium logo			Super Multi-Burner DL DVD±RW SATA Drive			41N5620																			
			DisplayPort to Single-link DVI-D Cable			45J7915																			
			DisplayPort to VGA Monitor Cable			57Y4393																			
Preloaded applications⁵ (all OSes; only some listed)			ATI Radeon HD 3470 256MB (DP, VGA)			45K1636																			
• Rescue and Recovery™			NVIDIA® Quadro® 256MB NVS 290			43R1765																			
• Client Security Solution™			NVIDIA Quadro 256MB FX 370 LP			55Y9275																			
• ThinkVantage Productivity Center			More accessories on O-M58 sheet																						
• ThinkVantage Power Manager (Vista)			Acc Guide in pdf lenovo.com/accessoriesguide																						
• McAfee® VirusScan® Plus (30-day)			Other accessories at lenovo.com/accessories																						
• Roxio® Creator® Business Edition (DVD±RW)																									
• Roxio MyDVD® (DVD±RW)																									
• Corel® WinDVD® (DVD, DVD±RW)																									
											Security														
											<ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons														
											Supports ThinkVantage® technologies														
											GREENGUARD® certified RoHS-compliant														
											Limited Warranty¹														
											<ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)														
											<ul style="list-style-type: none">➤ Onsite service upgrade options (in eligible locations):⁷														
											<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)														
											<ul style="list-style-type: none">➤ ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378														

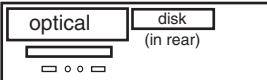
See footnotes for important warranty information
 US models announced January 20 or April 7, 2009

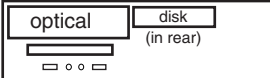
✗ US models withdrawn effective October 2009, December 2009, or April 2010

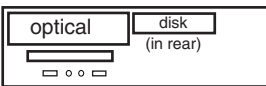
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ThinkCentre® M58 Small (7360) - XP with Win 7 License

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58	7360-EFU	2x3	Pentium E6300	2.80	2	1GB	250GB ²	DVD	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro		Nov 09
M58	7360-EDU	2x3	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro		Nov 09
M58	7360-EGU	2x3	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro	Educ	Nov 09
M58	7360-DBU	2x3	Core 2 Quad Q8400	2.66	4	2GB	250GB	DVD±RW	GMA	VGA, DP		None	XP Pro		Nov 09
M58	7360-ECU	2x3	Core 2 Quad Q8400	2.66	4	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	None	XP Pro		Nov 09
• These models have a 3-year limited warranty ¹															
Positioning	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E6300 with dual-core , Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Quad Processor Q8400 with quad-core , Virtualization Technology, 1333MHz system bus, and 4MB L2 cache Processor in LGA775 socket									Small					
Implementation										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)					
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Non-italics: standard memory in one socket; 3 sockets available									Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3 * used in some models					
Graphics	Some: Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 512MB [1GB models], 1GB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display Some: ATI™ Radeon™ HD 3470, PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts									<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation					
DP dongle	Some: DisplayPort to Single-link DVI-D Cable														
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support														
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive														
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar														
eSATA port	One external SATA (eSATA) port														
Diskette drive	None														
Media reader	None														
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec														
Speaker	One internal speaker for business audio														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0														
Intel AMT	None														
Modem	None														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo														
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs														
Preloaded operating system ²⁰			Accessories												
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional			1GB PC3-8500 DDR3 UDIMM			45J5434									
			2GB PC3-8500 DDR3 UDIMM			45J5435									
			500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990									
			1TB SATA 3.0Gb/s Disk (7200 rpm)			45J7918									
Preloaded applications ⁵ (only some listed)			DVD-ROM DL SATA 1.5Gb/s 16X-48X Max			41N5618									
• Some: Education software			Super Multi-Burner DL DVD±RW SATA Drive			41N5620									
- VitalSource™ Library School Edition			DisplayPort to Single-link DVI-D Cable			45J7915									
- Adobe® Elements			DisplayPort to VGA Monitor Cable			57Y4393									
- Photoshop Elements 6			ATI Radeon HD 3470 256MB (DP, VGA)			45K1636									
- Premiere Elements 4			NVIDIA® Quadro® 256MB NVS 290			43R1765									
• Rescue and Recovery™			NVIDIA Quadro 256MB FX 370 LP			55Y9275									
• Client Security Solution™			More accessories on O-M58 sheet												
• ThinkVantage Productivity Center			Acc Guide in pdf lenovo.com/accessoriesguide												
• ThinkVantage System Update			Other accessories at lenovo.com/accessories												
• McAfee® VirusScan® Plus (30 days of virus definitions)															
• Lenovo System Toolbox															
• Adobe Reader®															
• Microsoft® Office 2007 Trial (60-day)															
• Roxio® Creator® Business Edition (DVD±RW)															
• Roxio MyDVD® (DVD±RW)															
• Corel® WinDVD® (DVD, DVD±RW)															
Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378															

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date	
M58	7360-EHU	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	Pro 32	None	Jan 10	
• <i>This model has a 3-year limited warranty¹</i>																
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache									Small 		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 • Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation				
Implementation	Processor in LGA775 socket															
Memory	2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available															
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display															
DP dongle	DisplayPort to Single-link DVI-D Cable															
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1															
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive															
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors															
eSATA port	One external SATA (eSATA) port															
Diskette drive	None															
Media reader	None															
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)															
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA															
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)															
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec															
Speaker	One internal speaker for business audio															
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0															
Intel AMT	None															
Modem	None															
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo															
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs															
Preloaded operating system ²⁰			Accessories													
- Genuine Windows® 7 Professional 32			1GB PC3-8500 DDR3 UDIMM			45J5434										
			2GB PC3-8500 DDR3 UDIMM			45J5435										
Preloaded applications ⁵			500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990										
• Rescue and Recovery™			1TB SATA 3.0Gb/s Disk (7200 rpm)			45J7918										
• Password Manager			Super Multi-Burner DL DVD±RW SATA Drive			41N5620										
• ThinkVantage System Update			DisplayPort to Single-link DVI-D Cable			45J7915										
• ThinkVantage Power Manager			DisplayPort to VGA Monitor Cable			57Y4393										
• ThinkVantage Toolbox			ATI™ Radeon™ HD 3470 256MB (DP, VGA)			45K1636										
• Lenovo Online Data Backup			NVIDIA® Quadro® 256MB NVS 290			43R1765										
• Norton™ Internet Security 2009			NVIDIA Quadro 256MB FX 370 LP			55Y9275										
(30 days of virus definitions)			More accessories on O-M58 sheet													
• Adobe® Reader®			Acc Guide in pdf lenovo.com/accessoriesguide													
• Adobe Flash® Player			Other accessories at lenovo.com/accessories													
• Microsoft® Office 2007 Trial (60-day)																
• Roxio® Creator® Business Edition (DVD±RW)																
• Roxio MyDVD® (DVD±RW)																
											Security					
											• Security chip (see information on left) • Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons • Power-on password • Administrator password • Hard disk password (user and master) • Boot sequence control • Boot without diskette, keyboard • Serial port I/O control • Individual USB port disablement					
											Supports ThinkVantage® technologies					
											GREENGUARD® certified RoHS-compliant					
											Limited Warranty ¹ ⇨ 3-year parts and labor ⇨ International Warranty Service ⁹ ⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇨ Onsite service upgrade options (in eligible locations): ⁷ • 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192) • 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193) • 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194) • 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195) • 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196) ⇨ ThinkPlus services at lenovo.com/thinkplus/warranty ⇨ Post warranty maintenance services available ⇨ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378					

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date							
M58	6258-AJU	2x3	Pentium E5300	2.60	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09							
M58	6258-AKU	2x3	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD	GMA	VGA, DP		ES50	No	XP Pro	Feb 09							
M58	6258-AMU	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09							
M58	6258-APU	2x3	Core 2 Duo E7400	2.80	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09							
M58	6258-ALU	2x3	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD	GMA	VGA, DP		ES50	No	XP Pro	Feb 09							
M58	6258-ANU	2x3	Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09							
M58	6258-AQU	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09							
M58	6258-ASU	2x3	Pentium E5300	2.60	2	1GB	160GB	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	Bus32	Apr 09							
M58	6258-ARU	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	Bus32	Gbl Feb 09							
• These models have a 3-year limited warranty ¹																						
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E5300 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache									Small												
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)												
Memory	1GB or 2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available									Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3 * used in some models												
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory <i>(XP Pro: up to 512MB [1GB models], 1GB [2GB models]; Vista: up to 253MB [1GB model], 765MB [2GB model])</i> , one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> ATI™ Radeon™ HD 3470 , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts									<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation												
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable																					
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement Supports ThinkVantage® technologies												
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support																					
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																					
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																					
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																					
eSATA port	One external SATA (eSATA) port																					
Diskette drive	None																					
Media reader	None																					
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																					
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)									Supports ThinkVantage® technologies												
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																					
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)									Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																					
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																					
Speaker	One internal speaker for business audio																					
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																					
Intel AMT	None																					
Modem	None																					
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																					
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo									Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹												
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																					
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																					
Preloaded operating system²⁰			Accessories																			
- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)			1GB PC3-8500 DDR3 UDIMM 45J5434																			
			2GB PC3-8500 DDR3 UDIMM 45J5435																			
			500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990																			
			1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918																			
- <i>Some:</i> Genuine Windows Vista Business 32			DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618																			
			Super Multi-Burner DL DVD±RW SATA Drive 41N5620																			
◇ <i>Vista models:</i> Vista Premium logo			DisplayPort to Single-link DVI-D Cable 45J7915																			
			DisplayPort to VGA Monitor Cable 57Y4393																			
Preloaded applications⁵ (all OSes; only some listed)			ATI Radeon HD 3470 256MB (DP, VGA) 45K1636																			
			NVIDIA® Quadro® 256MB NVS 290 43R1765																			
			NVIDIA Quadro 256MB FX 370 LP 55Y9275																			
			More accessories on O-M58 sheet																			
			Acc Guide in pdf lenovo.com/accessoriesguide																			
			Other accessories at lenovo.com/accessories																			

See footnotes for important warranty information
 US models announced January 20 or April 7, 2009

⚡ US models withdrawn effective October or December 2009

Personal Systems Reference (PSREF)

- ***These models have a 3-year limited warranty¹***

See footnotes for important warranty information
US models announced October 22, 2009

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(MLAN4-3) October 2009

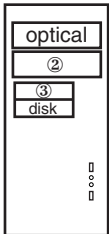
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58	7638-A2U	2x3	Core 2 Duo E7500	2.93	2	1GB	160GB ²	DVD	GMA	VGA, DP	None	None	Bus32	G P	Aug 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache			Small <div><div><div>optical</div><div>disk</div></div><div>(in rear)</div></div>																											
Implementation	Processor in FC-LGA8 package in LGA775 socket																														
Memory	1GB std, 8GB max ⁶ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; 3 sockets available			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)																											
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 253MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display			Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																											
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																														
SATA DVD	DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																														
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																														
eSATA port	One external SATA (eSATA) port																														
Diskette drive	None																														
Media reader	None																														
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																											
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																														
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																														
Speaker	One internal speaker for business audio																														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																														
Intel AMT	None																														
Modem	None																														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																														
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																														
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs																														
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Business 32✧ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Corel® WinDVD® (DVD)				Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td><td>41N5618</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td colspan="2">More accessories on O-M58 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>		1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370 LP	55Y9275	More accessories on O-M58 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC3-8500 DDR3 UDIMM	45J5434																														
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Acc Guide in pdf lenovo.com/accessoriesguide																															
Other accessories at lenovo.com/accessories																															
				Supports ThinkVantage® technologies																											
				GREENGUARD® certified RoHS-compliant																											
				Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)➤ ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																											

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58	9960-AKU	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Nov 09
M58	9960-ANU	4x4	Core 2 Quad Q9500	2.83	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q9500 with quad-core, 1333MHz system bus, and 6MB L2 cache			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention																													
Implementation	Processor in LGA775 socket			Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length,full-height, PCIe x1 Slot 3: half-length,full-height, 32-bit PCI 2.3 Slot 4: half-length,full-height, 32-bit PCI 2.3																													
Memory	2GB or 4GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available																																
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display																																
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening																																
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																																
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																																
eSATA port	None																																
Diskette drive	None																																
Media reader	None																																
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																													
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																													
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																																
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																																
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																																
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																																
Speaker	One internal speaker for business audio																																
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																																
Intel AMT	None																																
Modem	None																																
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																																
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs																																
Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional				Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB NVS 295</td><td>45K1669</td></tr></table> More accessories on O-M58 sheet						1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB NVS 295	45K1669
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Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)				Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories																													

See footnotes for important warranty information

US model announced February 23, 2010; previous models on November 3, 2009

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(MLAN4-12) March 2010

ThinkCentre® M58 Tower (9960) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

	Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
	M58	9960-ALU	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Jan 10
ES	M58	9960-APU	4x4	Core 2 Quad Q9500	2.83	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Mar 10
ES	M58	9960-AMU	4x4	Core 2 Duo E7500	2.93	2	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	Pro 64	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q9500 with quad-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket					Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div></div></div>																																
Implementation	Processor in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																											
Memory	2GB or 4GB std, 8GB max⁸, PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available																																					
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 765MB [2GB models] or 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display																																					
SATA disk	250GB or 320GB, SATA 3.0Gb/s 7200 rpm, vibration dampening																																					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																																					
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																					
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																																					
eSATA port	None										<div>Security<ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement</div> <div>Supports ThinkVantage® technologies</div> <div>GREENGUARD® certified RoHS-compliant</div> <div>Limited Warranty¹<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div>																											
Diskette drive	None																																					
Media reader	None																																					
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																																					
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																					
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																																					
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																																					
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Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																																					
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																					
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Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs																																					
Preloaded operating system²⁰ <ul style="list-style-type: none">- Some: Genuine Windows® 7 Professional 32- Some: Genuine Windows 7 Professional 64					Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB NVS 295</td><td>45K1669</td></tr></table> More accessories on O-M58 sheet					1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB NVS 295	45K1669	Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories				
1GB PC3-8500 DDR3 UDIMM	45J5434																																					
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NVIDIA Quadro 256MB NVS 295	45K1669																																					
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)																																						

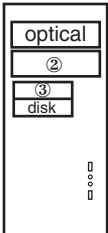
See footnotes for important warranty information

ES US models announced February 23, 2010; previous model on January 12, 2010

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(MLAN4-25) March 2010

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
☞	M58	7373-D3U	4x4	Pentium E5300	2.60	2	1GB	160GB ²	DVD	GMA	VGA, DP	None	XP Pro		Apr 09
☞	M58	7373-BTU	4x4	Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	XP Pro		Feb 09
☞	M58	7373-BUU	4x4	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD	GMA	VGA, DP	None	XP Pro		Feb 09
☞	M58	7373-BWU	4x4	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro	Feb 09
	M58	7373-BVU	4x4	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD	GMA	VGA, DP	None	XP Pro		Feb 09
	M58	7373-D1U	4x4	Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro	Feb 09
☞	M58	7373-D2U	4x4	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	Bus32 Gbl	Feb 09

• These models have a 3-year limited warranty¹

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E5300 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 																										
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk																										
Memory	1GB or 2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																										
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (<i>XP Pro models:</i> up to 512MB [<i>1GB models</i>], 1GB [<i>2GB models</i>]; <i>Vista models:</i> up to 765MB [<i>2GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> DisplayPort to Single-link DVI-D Cable		Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																										
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable																												
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Supports ThinkVantage® technologies																										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																												
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive		GREENGUARD® certified RoHS-compliant																										
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																												
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar		Limited Warranty¹ <ul style="list-style-type: none">☞ 3-year parts and labor☞ International Warranty Service⁹☞ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)☞ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)☞ ThinkPlus services at lenovo.com/thinkplus/warranty☞ Post warranty maintenance services available☞ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																										
eSATA port	None																												
Diskette drive	None																												
Media reader	None																												
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																												
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																												
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																												
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																												
Speaker	One internal speaker for business audio																												
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																												
Intel AMT	None																												
Modem	None																												
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																												
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																												
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																												
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs																												
Preloaded operating system²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)- <i>Some:</i> Genuine Windows Vista Business 32☞ <i>Vista models:</i> Vista Premium logo Preloaded applications⁵ (all OSes) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager (Vista)• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)		Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB NVS 295</td><td>45K1669</td></tr></table> More accessories on O-M58 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB NVS 295	45K1669
1GB PC3-8500 DDR3 UDIMM	45J5434																												
2GB PC3-8500 DDR3 UDIMM	45J5435																												
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																												
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																												
DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618																												
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																												
Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675																												
DisplayPort to Single-link DVI-D Cable	45J7915																												
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NVIDIA Quadro® 256MB NVS 290	43R1765																												
NVIDIA Quadro 256MB NVS 295	45K1669																												

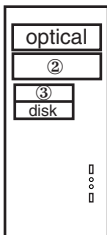
See footnotes for important warranty information
US models announced January 20 or April 7, 2009

☞ US models withdrawn effective October 2009, December 2009, or April 2010

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(MLAN2-8) April 2009

ThinkCentre® M58 Tower (7373) - XP with Win 7 License

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58	7373-E5U	4x4	Pentium E6300	2.80	2	1GB	250GB ²	DVD	GMA	VGA, DP		None	XP Pro		Nov 09
M58	7373-E6U	4x4	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP		None	XP Pro		Nov 09
M58	7373-E7U	4x4	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro	Educ	Nov 09
M58	7373-E4U	4x4	Core 2 Quad Q8400	2.66	4	2GB	320GB	DVD±RW	GMA	VGA, DP		None	XP Pro		Nov 09
M58	7373-E3U	4x4	Core 2 Quad Q8400	2.66	4	2GB	320GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	None	XP Pro		Nov 09
• These models have a 3-year limited warranty ¹															
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E6300 with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Quad Processor Q8400 with quad-core, Virtualization Technology, 1333MHz system bus, and 4MB L2 cache									Tower					
Implementation															
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Non-italics: standard memory in one socket; 3 sockets available														
Graphics	Some: Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 512MB [1GB models], 1GB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display Some: ATI™ Radeon™ HD 3470, PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)* Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3			
DP dongle	Some: DisplayPort to Single-link DVI-D Cable														
SATA disk	250GB or 320GB, SATA 3.0Gb/s 7200 rpm, vibration dampening														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support														
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive														
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar														
eSATA port	None														
Diskette drive	None														
Media reader	None														
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec														
Speaker	One internal speaker for business audio														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0														
Intel AMT	None														
Modem	None														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs														
Preloaded operating system ²⁰			Accessories												
- Windows® XP Professional preinstalled			1GB PC3-8500 DDR3 UDIMM 45J5434												
- VitalSource™ Library School Edition			2GB PC3-8500 DDR3 UDIMM 45J5435												
Windows 7 Professional			500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990												
Preloaded applications ⁵ (only some listed)			1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
• Some: Education software			DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618												
- VitalSource™ Library School Edition			Super Multi-Burner DL DVD±RW SATA Drive 41N5620												
- Adobe® Elements			Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675												
– Photoshop Elements 6			DisplayPort to Single-link DVI-D Cable 45J7915												
– Premiere Elements 4			DisplayPort to VGA Monitor Cable 57Y4393												
• Rescue and Recovery™			ATI Radeon HD 3470 256MB (DP, VGA) 45K1636												
• Client Security Solution™			NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635												
• ThinkVantage Productivity Center			NVIDIA Quadro® 256MB NVS 290 43R1765												
• ThinkVantage System Update			NVIDIA Quadro 256MB NVS 295 45K1669												
• McAfee® VirusScan® Plus (30 days of virus definitions)			More accessories on O-M58 sheet												
• Lenovo System Toolbox			Acc Guide in pdf lenovo.com/accessoriesguide												
• Adobe Reader®			Other accessories at lenovo.com/accessories												
• Microsoft® Office 2007 Trial (60-day)															
• Roxio® Creator® Business Edition (DVD±RW)															
• Roxio MyDVD® (DVD±RW)															
• Corel® WinDVD® (DVD, DVD±RW)															
Security															
• Security chip (see information on left)															
• One lock to secure both cover and entire system to fixed object:															
- Padlock loop (in rear for opt padlock)															
- Security slot (in rear for optional Kensington® MicroSaver® cable)															
• Power-on password															
• Administrator password															
• Hard disk password (user and master)															
• Boot sequence control															
• Boot without diskette, keyboard															
• Serial port I/O control															
• Individual USB port disablement															
Supports ThinkVantage® technologies															
GREENGUARD® certified RoHS-compliant															
Limited Warranty ¹															
➤ 3-year parts and labor															
➤ International Warranty Service ⁹															
➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)															
➤ Onsite service upgrade options (in eligible locations): ⁷															
• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)															
• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)															
• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)															
• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)															
• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)															
➤ ThinkPlus services at lenovo.com/thinkplus/warranty															
➤ Post warranty maintenance services available															
➤ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378															

See footnotes for important warranty information
US models announced October 22, 2009
⚠ US model withdrawn effective December 2009

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(MLAN4-4) October 2009

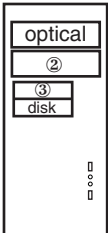
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
M58	7373-EGU	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	Pro 32	None	Jan 10
• This model has a 3-year limited warranty ¹															

Positioning	Ultimate security, stability, and manageability for the enterprise										Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>0000</div></div>				
Processor	Intel® Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache														
Implementation	Processor in LGA775 socket														
Memory	2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Non-italics: standard memory in one socket; 3 sockets available														
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3				
DP dongle	DisplayPort to Single-link DVI-D Cable														
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1														
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar														
eSATA port	None														
Diskette drive	None														
Media reader	None														
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement				
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec														
Speaker	One internal speaker for business audio														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0														
Intel AMT	None														
Modem	None														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										Supports ThinkVantage® technologies				
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs														
Preloaded operating system ²⁰			Accessories			45J5434									
- Genuine Windows® 7 Professional 32			1GB PC3-8500 DDR3 UDIMM			45J5435									
Preloaded applications ⁵			2GB PC3-8500 DDR3 UDIMM			43R1990									
• Rescue and Recovery™			500GB SATA 3.0Gb/s Disk (7200 rpm)			45J7918									
• Password Manager			1TB SATA 3.0Gb/s Disk (7200 rpm)			41N5620									
• ThinkVantage System Update			Super Multi-Burner DL DVD±RW SATA Drive			45K1675									
• ThinkVantage Power Manager			Blu-ray™ Burner SATA 1.5Gb/s Drive			45J7915									
• ThinkVantage Toolbox			DisplayPort to Single-link DVI-D Cable			57Y4393									
• Lenovo Online Data Backup			DisplayPort to VGA Monitor Cable			45K1636									
• Norton™ Internet Security 2009			ATI™ Radeon™ HD 3470 256MB (DP, VGA)			45K1635									
(30 days of virus definitions)			NVIDIA® GeForce® 9500GT 512MB (DP, DVI)			43R1765									
• Adobe® Reader®			NVIDIA Quadro® 256MB NVS 290			45K1669									
• Adobe Flash® Player			NVIDIA Quadro 256MB NVS 295												
• Microsoft® Office 2007 Trial (60-day)			More accessories on O-M58 sheet												
• Roxio® Creator® Business Edition			Acc Guide in pdf lenovo.com/accessoriesguide												
(DVD±RW)			Other accessories at lenovo.com/accessories												
• Roxio MyDVD® (DVD±RW)															

Supports ThinkVantage® technologies	
GREENGUARD® certified RoHS-compliant	
Limited Warranty ¹	
➤ 3-year parts and labor	
➤ International Warranty Service ⁹	
➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)	
➤ Onsite service upgrade options (in eligible locations): ⁷	
• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)	
• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)	
• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)	
• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)	
• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)	
➤ ThinkPlus services at lenovo.com/thinkplus/warranty	
➤ Post warranty maintenance services available	
➤ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378	

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Preload	Educ	Global	Avail date
M58	9728-A6U	4x4	Pentium E6300	2.80	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP		ES50	No	XP Pro	No	Oct 09	
M58	9728-A7U	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	No	Oct 09	
M58	9728-A8U	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	No	Oct 09	

• These models have a 3-year limited warranty¹

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor E6300 with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, Virtualization Technology, 1066MHz system bus, and 3MB L2 cache Processor in LGA775 socket										Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 						
Implementation	Processor in LGA775 socket																
Memory	2GB std, 8GB max⁸, PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available																
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> ATI™ Radeon™ HD 3470 , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)* Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3						
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable										* used in some models						
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<div><div><div>Security<ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement</div><div>Supports ThinkVantage® technologies</div><div>Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant</div><div><div><div>Limited Warranty¹<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div></div></div></div>						
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																
eSATA port	None																
Diskette drive	None																
Media reader	None																
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																
Speaker	One internal speaker for business audio																
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																
Intel AMT	None																
Modem	None																
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																
Preloaded operating system²⁰							Accessories										
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional							1GB PC3-8500 DDR3 UDIMM					45J5434					
							2GB PC3-8500 DDR3 UDIMM					45J5435					
							500GB SATA 3.0Gb/s Disk (7200 rpm)					43R1990					
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)							1TB SATA 3.0Gb/s Disk (7200 rpm)					45J7918					
							Super Multi-Burner DL DVD±RW SATA Drive					41N5620					
							Blu-ray™ Burner SATA 1.5Gb/s Drive					45K1675					
							DisplayPort to Single-link DVI-D Cable					45J7915					
							DisplayPort to VGA Monitor Cable					57Y4393					
							ATI Radeon HD 3470 256MB (DP, VGA)					45K1636					
							NVIDIA® GeForce® 9500GT 512MB (DP, DVI)					45K1635					
							NVIDIA Quadro® 256MB NVS 290					43R1765					
							NVIDIA Quadro 256MB NVS 295					45K1669					
							More accessories on O-M58 sheet										
							Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories										

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
M58	9728-A5U	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	ES50	No	Pro 32	Gbl	Oct 09

- *This model has a 3-year limited warranty¹*

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E7500 with dual-core , Virtualization Technology, 1066MHz system bus, and 3MB L2 cache		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>Bay ①</div><div>Bay ②</div><div>Bay ③</div><div>Bay ④</div></div>																													
Implementation	Processor in LGA775 socket																															
Memory	2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available																															
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display																															
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																															
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																															
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																															
eSATA port	None																															
Diskette drive	None																															
Media reader	None																															
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																															
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																															
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																															
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																															
Speaker	One internal speaker for business audio																															
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																															
Intel AMT	None																															
Modem	None																															
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																															
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																															
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																															
Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32																																
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)																																
Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB NVS 295</td><td>45K1669</td></tr><tr><td colspan="2">More accessories on O-M58 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>			1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB NVS 295	45K1669	More accessories on O-M58 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
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Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																																
Supports ThinkVantage® technologies																																
Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant																																
Limited Warranty ¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win 7 preload	Global (G) GMP (P)	Avail date
M58	7639-A1U	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	None	Pro 32	G P	Nov 09

- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache Processor in LGA775 socket			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>④</div></div>																														
Implementation	Processor in LGA775 socket																																	
Memory	2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available																																	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display																																	
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			Bay ① 5.25", 1.6" high, access, std optical																														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			Bay ② 5.25", 1.6" high, access, open																														
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			Bay ③ 3.5", 1" high, access, open (reader/diskette)																														
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar			Bay ④ 3.5", 1" high, no access, std disk																														
eSATA port	None			Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)																														
Diskette drive	None			Slot 2: half-length, full-height, PCIe x1																														
Media reader	None			Slot 3: half-length, full-height, 32-bit PCI 2.3																														
				Slot 4: half-length, full-height, 32-bit PCI 2.3																														
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																	
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Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32																																		
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				Supports ThinkVantage® technologies																														
				GREENGUARD® certified RoHS-compliant																														
				Limited Warranty ¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																														

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro Preload	Global Educ	Avail date
M58p	9961-AKU	1x2	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	ES50	vPro XP Pro	No	Nov 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		Eco Ultra Small <div><div>optical</div><div>disk</div><div></div></div>		
Implementation	Processor in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3		
Memory	2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation		
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement		
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar				
eSATA port	None		Supports ThinkVantage® technologies		
Diskette drive	None				
Media reader	None				
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)				
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec				
Speaker	One internal speaker for business audio				
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378		
Intel AMT	Intel Active Management Technology (iAMT)				
Modem	None				
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo				
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU				
Preloaded operating system²⁰		Accessories			
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional		1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987 2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 Lenovo Vertical PC and Monitor Stand II 41R4474 ThinkCentre Ultra Small Under Desk Mount 40Y8625 More accessories on O-M58 sheet			
Preloaded applications⁵ (only some listed)		Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			
<ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)					

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
M58p	9961-ALU	1x2	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Pro 32	No	Jan 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty¹**


Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Eco Ultra Small <div><div>optical</div><div>disk</div></div>																								
Implementation	Processor in LGA775 socket																										
Memory	2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3																								
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation																								
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement																								
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																										
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar																										
eSATA port	None		Supports ThinkVantage® technologies																								
Diskette drive	None																										
Media reader	None																										
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O		EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant																								
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																										
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																										
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																										
Speaker	One internal speaker for business audio																										
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																										
Intel AMT	Intel Active Management Technology (iAMT)		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																								
Modem	None																										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																										
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																										
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32		Accessories <table><tr><td>1GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1987</td></tr><tr><td>2GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1988</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>Lenovo Vertical PC and Monitor Stand II</td><td>41R4474</td></tr><tr><td>ThinkCentre Ultra Small Under Desk Mount</td><td>40Y8625</td></tr><tr><td colspan="2">More accessories on O-M58 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>		1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625	More accessories on O-M58 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
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Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)																											

ThinkCentre® M58p Eco Ultra Small (7479)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global Educ	Avail date
M58p	7479-A4U	1x2	Core 2 Duo E8400	3.00	2	1GB	160GB ²	DVD	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
✖ M58p	7479-A3U	1x2	Core 2 Duo E8400	3.00	2	1GB	250GB	DVD±RW	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
M58p	7479-A6U	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
M58p	7479-A8U	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Dec 08
✖ M58p	7479-A9U	1x2	Core 2 Duo E8500	3.16	2	1GB	160GB	DVD	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
M58p	7479-ABU	1x2	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
M58p	7479-ACU	1x2	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Dec 08

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- These models have a 3-year limited warranty¹

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache	Eco Ultra Small	
Implementation	Processor in FC-LGA8 package in LGA775 socket		
Memory	1GB or 2GB std, 4GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 253MB [1GB models], 765MB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> DisplayPort to Single-link DVI-D Cable	<ul style="list-style-type: none"> Business black color; metal case 10.8" W X 9.4" D X 3.1" H 275mm W X 238mm D X 80mm H 9.2 lb (4.2 kg) in maximum configuration Hinged toolless cover for easy serviceability Toolless disk and optical drive removal Toolless systemboard retention System floor stand for vertical orientation 	
DP dongle			
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support		
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0		
Intel AMT	Intel Active Management Technology (iAMT)		
Modem	None		
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU		
Preloaded operating system ²⁰		Accessories	
- Genuine Windows® Vista® Business 32		1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987
✧ Vista Premium logo		2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988
Preloaded applications ⁵		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
• Rescue and Recovery™		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
• Client Security Solution™		DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618
• ThinkVantage Productivity Center		Super Multi-Burner DL DVD±RW SATA Drive	41N5620
• ThinkVantage System Update		DisplayPort to Single-link DVI-D Cable	45J7915
• ThinkVantage Power Manager		DisplayPort to VGA Monitor Cable	57Y4393
• McAfee® VirusScan® Plus		Lenovo Vertical PC and Monitor Stand II	41R4474
(30 days of virus definitions)		ThinkCentre Ultra Small Under Desk Mount	40Y8625
• Lenovo System Toolbox		More accessories on O-M58 sheet	
• Adobe® Reader®		Acc Guide in pdf lenovo.com/accessoriesguide	
• Microsoft® Office 2007 Trial (60-day)		Other accessories at lenovo.com/accessories	
• Roxio® Creator® Business Edition			
(DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD, DVD±RW)			
		Security	
		<ul style="list-style-type: none"> Security chip (see information on left) Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security Power-on password Administrator password Hard disk password (user and master) Boot sequence control Boot without diskette, keyboard Individual USB port disablement 	
		Supports ThinkVantage® technologies	
		EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
		Limited Warranty ¹	
		<ul style="list-style-type: none"> 3-year parts and labor International Warranty Service® Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) Onsite service upgrade options (in eligible locations):⁷ <ul style="list-style-type: none"> 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192) 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193) 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194) 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195) 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196) ThinkPlus services at lenovo.com/thinkplus/warranty Post warranty maintenance services available 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378 	

See footnotes for important warranty information
US models announced November 11, 2008
✖ US models withdrawn effective December 2009

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(MLAN1-20) November 2008

- *Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)*
- *These models have a 3-year limited warrantyⁱ*

See footnotes for important warranty information
US models announced April 7, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR	Intel vPro	Win7 preload	Global Educ	Avail date
M58p	7479-B9U	1x2	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	Pro	32	None Jan 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model has a 3-year limited warranty¹**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Eco Ultra Small <div><div>optical</div><div>disk</div><div></div></div>																									
Implementation	Processor in LGA775 socket																											
Memory	2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3																									
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display DisplayPort to Single-link DVI-D Cable		<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation																									
DP dongle																												
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement																									
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support																											
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																											
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar																											
eSATA port	None																											
Diskette drive	None		Supports ThinkVantage® technologies																									
Media reader	None																											
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																											
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																											
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Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																											
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			Limited Warranty ¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																									

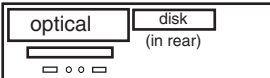
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58p	6136-A1U	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Bus32	G P	Dec 08

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Eco Ultra Small <div><div>optical</div><div>disk</div><div></div></div>																		
Implementation	Processor in FC-LGA8 package in LGA775 socket																				
Memory	2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3																		
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation																		
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement• Chassis intrusion switch																		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar																				
eSATA port	None		Supports ThinkVantage® technologies																		
Diskette drive	None																				
Media reader	None																				
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant																		
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																				
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																				
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																				
Speaker	One internal speaker for business audio																				
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																				
Intel AMT	Intel Active Management Technology (iAMT)		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																		
Modem	None																				
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																				
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																				
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Business 32⇧ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)		Accessories <table><tr><td>1GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1987</td></tr><tr><td>2GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1988</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>Lenovo Vertical PC and Monitor Stand II</td><td>41R4474</td></tr><tr><td>ThinkCentre Ultra Small Under Desk Mount</td><td>40Y8625</td></tr></table> More accessories on O-M58 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625
1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987																				
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DisplayPort to Single-link DVI-D Cable	45J7915																				
DisplayPort to VGA Monitor Cable	57Y4393																				
Lenovo Vertical PC and Monitor Stand II	41R4474																				
ThinkCentre Ultra Small Under Desk Mount	40Y8625																				

ThinkCentre® M58p Small (9964) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date																					
M58p	9964-A7U	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 09																					
M58p	9964-A8U	2x3	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 09																					
<ul style="list-style-type: none">• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)• These small and medium business (SMB) models are part of the US TopSeller™ Program• These models have a 3-year limited warranty¹																																				
Positioning	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket									Small  Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 • Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation																										
Implementation																																				
Memory	2GB or 4GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available																																			
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display																																			
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening									Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support																																			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																																			
eSATA port	One external SATA (eSATA) port																																			
Diskette drive	None																																			
Media reader	None																																			
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																																			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																																			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																																			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																																			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																																			
Speaker	One internal speaker for business audio																																			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																																			
Intel AMT	Intel Active Management Technology (iAMT)																																			
Modem	None																																			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																																			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo									Supports ThinkVantage® technologies																										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo									GREENGUARD® certified RoHS-compliant Limited Warranty¹ <ul style="list-style-type: none">≈ 3-year parts and labor≈ International Warranty Service⁹≈ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)≈ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)≈ ThinkPlus services at lenovo.com/thinkplus/warranty≈ Post warranty maintenance services available≈ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																										
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs																																			
Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)																	Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370 LP</td><td>55Y9275</td></tr></table> More accessories on O-M58 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories							1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable
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DisplayPort to VGA Monitor Cable	57Y4393																																			
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																			
NVIDIA® Quadro® 256MB NVS 290	43R1765																																			
NVIDIA Quadro 256MB FX 370 LP	55Y9275																																			

See footnotes for important warranty information

US models announced November 3, 2009


≈ US model withdrawn effective April 2010

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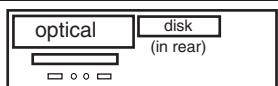
(MLAN4-15) November 2009

ThinkCentre® M58p Small (9964) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
 M58p	9964-ABU	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	vPro	Pro 32	None	Jan 10
M58p	9964-ACU	2x3	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	Pro 32	None	Jan 10
M58p	9964-ADU	2x3	Core 2 Duo E8400	3.00	2	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	Pro 64	None	Mar 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> Intel® Core™ 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket	Small <div></div> <div>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)</div> <div>Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3</div> <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation
Implementation		
Memory	2GB or 4GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB [2GB models] or 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display	
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar	
eSATA port	One external SATA (eSATA) port	
Diskette drive	None	
Media reader	None	
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec	
Speaker	One internal speaker for business audio	
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0	
Intel AMT	Intel Active Management Technology (iAMT)	
Modem	None	
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo	
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs	
Preloaded operating system²⁰		
- <i>Some:</i> Genuine Windows® 7 Professional 32		
- <i>Some:</i> Genuine Windows 7 Professional 64		
Preloaded applications⁵ (only some listed)		
• Rescue and Recovery™		
• Password Manager		
• ThinkVantage System Update		
• ThinkVantage Power Manager		
• ThinkVantage Toolbox		
• Lenovo Online Data Backup		
• Norton™ Internet Security 2009 (30 days of virus definitions)		
• Adobe® Reader®		
• Adobe Flash® Player		
• Microsoft® Office 2007 Trial (60-day)		
• Roxio® Creator® Business Edition (DVD±RW)		
• Roxio MyDVD® (DVD±RW)		
Accessories		
1GB PC3-8500 DDR3 UDIMM 45J5434		
2GB PC3-8500 DDR3 UDIMM 45J5435		
500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918		
Super Multi-Burner DL DVD±RW SATA Drive 41N5620		
DisplayPort to Single-link DVI-D Cable 45J7915		
DisplayPort to VGA Monitor Cable 57Y4393		
ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636		
NVIDIA® Quadro® 256MB NVS 290 43R1765		
NVIDIA Quadro 256MB FX 370 LP 55Y9275		
More accessories on O-M58 sheet		
Acc Guide in pdf lenovo.com/accessoriesguide		
Other accessories at lenovo.com/accessories		

- ⇒ **3-year parts and labor**
- ⇒ **International Warranty Service⁹**
- ⇒ **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)**
- ⇒ **Onsite service upgrade options (in eligible locations):⁷**
 - **3-year LOR 9x5, 4 hour response** (ThinkPlus™ part number 41C9192)
 - **3-year LOR 24x7, 4 hour response** (ThinkPlus part number 41C9193)
 - **4-year LOR 9x5, Next Business Day** (ThinkPlus part number 41C9194)
 - **4-year LOR 9x5, 4 hour response** (ThinkPlus part number 41C9195)
 - **4-year LOR 24x7, 4 hour response** (ThinkPlus part number 41C9196)
- ⇒ **ThinkPlus services at lenovo.com/thinkplus/warranty**
- ⇒ **Post warranty maintenance services available**
- ⇒ **24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378**

See footnotes for important warranty information

US model announced February 23, 2010; previous models on January 12, 2010

US model withdrawn effective April 2010

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(MLAN4-27) February 2010

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Chassis intr switch	Intel vPro	Vista preload	Global Educ	Avail date
	M58p	7483-AEU	2x3 Core 2 Duo E8400	3.00	2	1GB	160GB ²	DVD	GMA	VGA, DP			vPro	Bus32		Nov 08
✂	M58p	7483-AFU	2x3 Core 2 Duo E8400	3.00	2	1GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
	M58p	7483-A7U	2x3 Core 2 Duo E8400	3.00	2	1GB	250GB	DVD±RW	GMA	VGA, DP		Switch	vPro	Bus32		Nov 08
	M58p	7483-ACU	2x3 Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP			vPro	Bus32		Nov 08
✂	M58p	7483-AGU	2x3 Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP			vPro	Bus32	Educ	Nov 08
	M58p	7483-AHU	2x3 Core 2 Duo E8400	3.00	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
✂	M58p	7483-AJU	2x3 Core 2 Duo E8500	3.16	2	1GB	250GB	DVD	GMA	VGA, DP			vPro	Bus32		Nov 08
	M58p	7483-AKU	2x3 Core 2 Duo E8500	3.16	2	2GB	160GB	DVD	3470	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
✂	M58p	7483-ALU	2x3 Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
	M58p	7483-AMU	2x3 Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
✂	M58p	7483-ANU	2x3 Core 2 Quad Q9400	2.66	4	2GB	160GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
<ul style="list-style-type: none">Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)These models have a 3-year limited warranty¹																
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA8 package in LGA775 socket									Small <div><div>optical</div><div>disk (in rear)</div></div> <p>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3</p> <p>* used in some models</p> <ul style="list-style-type: none">Business black color; metal case12.5" W X 14.0" D X 3.9" H317mm W X 355mm D X 99mm H16.5 lb (7.5 kg) in maximum configurationToolless cover flips up and tilts backward on rear hingesToolless disk, optical drive removalToolless adapter retentionToolless systemboard retentionSystem floor stand for vertical orientation						
Implementation	Processor in FC-LGA8 package in LGA775 socket															
Memory	1GB or 2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available															
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 253MB [<i>1GB models</i>], 765MB [<i>2GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> ATI™ Radeon™ HD 3470 , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts															
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable															
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support															
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive															
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive															
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar															
eSATA port	One external SATA (eSATA) port															
Diskette drive	None															
Media reader	None															
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)															
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA															
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)															
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec															
Speaker	One internal speaker for business audio															
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0															
Intel AMT	Intel Active Management Technology (iAMT)															
Modem	None															
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo															
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs															
Preloaded operating system²⁰				Accessories												
- Genuine Windows® Vista® Business 32				1GB PC3-8500 DDR3 UDIMM				45J5434								
✦ Vista Premium logo				2GB PC3-8500 DDR3 UDIMM				45J5435								
Preloaded applications⁵ (only some listed)				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990								
• <i>Some:</i> Education software				1TB SATA 3.0Gb/s Disk (7200 rpm)				45J7918								
- VitalSource™ Library School Edition				DVD-ROM DL SATA 1.5Gb/s 16-48X Max				41N5618								
- Adobe® Elements				Super Multi-Burner DL DVD±RW SATA Drive				41N5620								
- Photoshop Elements 6				DisplayPort to Single-link DVI-D Cable				45J7915								
- Premiere Elements 4				DisplayPort to VGA Monitor Cable				57Y4393								
• Rescue and Recovery™				ATI Radeon HD 3470 256MB (DP, VGA)				45K1636								
• Client Security Solution™				NVIDIA® Quadro® 256MB NVS 290				43R1765								
• ThinkVantage Productivity Center				NVIDIA Quadro 256MB FX 370 LP				55Y9275								
• Microsoft® Office 2007 Trial (60-day)				More accessories on O-M58 sheet												
• Roxio® Creator® Business Edition (DVD±RW)				Acc Guide in pdf lenovo.com/accessoriesguide												
• Roxio MyDVD® (DVD±RW)				Other accessories at lenovo.com/accessories												
• Corel® WinDVD® (DVD, DVD±RW)																
Security <ul style="list-style-type: none">Security chip (see information on left)Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttonsPower-on passwordAdministrator passwordHard disk password (user and master)Boot sequence controlBoot without diskette, keyboardSerial port I/O controlIndividual USB port disablement<i>Some:</i> Chassis intrusion switch																
Supports ThinkVantage® technologies																
GREENGUARD® certified RoHS-compliant																
Limited Warranty¹ <ul style="list-style-type: none">3-year parts and laborInternational Warranty Service⁹Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)ThinkPlus services at lenovo.com/thinkplus/warranty24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																

See footnotes for important warranty information

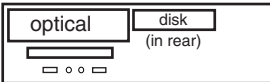
US models announced October 21, 2008

✂ US models withdrawn effective December 2009 or April 2010

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(MLAN1-4) October 2008

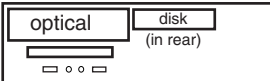
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58p	7483-B1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	XP Pro	None	Apr 09
M58p	7483-B2U	2x3	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	XP Pro	None	Apr 09

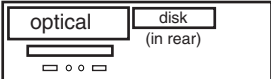
- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Small 
Implementation	Processor in FC-LGA8 package in LGA775 socket		
Memory	2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement
DP dongle	DisplayPort to Single-link DVI-D Cable		
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	One external SATA (eSATA) port		
Diskette drive	None		
Media reader	None		
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0		
Intel AMT	Intel Active Management Technology (iAMT)		
Modem	None		
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs		
Preloaded operating system²⁰			Supports ThinkVantage® technologies
<ul style="list-style-type: none">- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)			GREENGUARD® certified RoHS-compliant
Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)			Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
Accessories			
1GB PC3-8500 DDR3 UDIMM 45J5434			
2GB PC3-8500 DDR3 UDIMM 45J5435			
500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
DisplayPort to Single-link DVI-D Cable 45J7915			
DisplayPort to VGA Monitor Cable 57Y4393			
ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636			
NVIDIA® Quadro® 256MB NVS 290 43R1765			
NVIDIA Quadro 256MB FX 370 LP 55Y9275			
More accessories on O-M58 sheet			
Acc Guide in pdf lenovo.com/accessoriesguide			
Other accessories at lenovo.com/accessories			

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
M58p	7483-BRU	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	Pro 32	None	Jan 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model has a 3-year limited warranty¹**

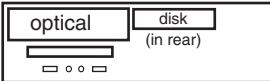
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache			Small 																										
Implementation	Processor in LGA775 socket																													
Memory	2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)																										
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display DisplayPort to Single-link DVI-D Cable			Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																										
DP dongle	DisplayPort to Single-link DVI-D Cable																													
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																													
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																													
eSATA port	One external SATA (eSATA) port																													
Diskette drive	None																													
Media reader	None																													
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																													
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																													
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																													
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																													
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																													
Speaker	One internal speaker for business audio																													
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																													
Intel AMT	Intel Active Management Technology (iAMT)																													
Modem	None																													
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Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																													
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs																													
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32																														
Preloaded applications ⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)																														
Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td colspan="2">More accessories on O-M58 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>				1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370 LP	55Y9275	More accessories on O-M58 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories		
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Supports ThinkVantage® technologies																														
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Limited Warranty ¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																														

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global Educ	Avail date	
M58p	7220-A6U	2x3	Core 2 Duo E8400	3.00	2	1GB	160GB ²	DVD	GMA	VGA, DP		ES50	vPro	Bus32	No	Nov 08	
M58p	7220-A7U	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD	3470	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Nov 08	
M58p	7220-A8U	2x3	Core 2 Duo E8500	3.16	2	1GB	250GB	DVD	GMA	VGA, DP		ES50	vPro	Bus32	No	Nov 08	
M58p	7220-A9U	2x3	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD	3470	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Nov 08	
M58p	7220-ABU	2x3	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Nov 08	
• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology) • These models have a 3-year limited warranty ¹																	
Positioning	Ultimate security, stability, and manageability for the enterprise										Small						
Processor	Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache																
Implementation	Processor in FC-LGA8 package in LGA775 socket																
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Italics: standard memory in two sockets; two sockets available; Non-italics: standard memory in one socket; 3 sockets available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)		Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3				
Graphics	Some: Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 253MB [1GB models], 765MB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display Some: ATI™ Radeon™ HD 3470, PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts										* used in some models		• Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation				
DP dongle	Some: DisplayPort to Single-link DVI-D Cable																
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening																
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																
eSATA port	One external SATA (eSATA) port																
Diskette drive	None																
Media reader	None																
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																
Speaker	One internal speaker for business audio																
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																
Intel AMT	Intel Active Management Technology (iAMT)																
Modem	None																
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																
Preloaded operating system ²⁰			Accessories														
- Genuine Windows® Vista® Business 32			1GB PC3-8500 DDR3 UDIMM													45J5434	
- Vista Premium logo			2GB PC3-8500 DDR3 UDIMM													45J5435	
Preloaded applications ⁵			500GB SATA 3.0Gb/s Disk (7200 rpm)													43R1990	
• Rescue and Recovery™			1TB SATA 3.0Gb/s Disk (7200 rpm)													45J7918	
• Client Security Solution™			DVD-ROM DL SATA 1.5Gb/s 16-48X Max													41N5618	
• ThinkVantage Productivity Center			Super Multi-Burner DL DVD±RW SATA Drive													41N5620	
• ThinkVantage System Update			DisplayPort to Single-link DVI-D Cable													45J7915	
• ThinkVantage Power Manager			DisplayPort to VGA Monitor Cable													57Y4393	
• McAfee® VirusScan® Plus			ATI Radeon HD 3470 256MB (DP, VGA)													45K1636	
(30 days of virus definitions)			NVIDIA® Quadro® 256MB NVS 290													43R1765	
• Lenovo System Toolbox			NVIDIA Quadro 256MB FX 370 LP													55Y9275	
• Adobe® Reader®			More accessories on O-M58 sheet														
• Microsoft® Office 2007 Trial (60-day)			Acc Guide in pdf lenovo.com/accessoriesguide														
• Roxio® Creator® Business Edition (DVD±RW)			Other accessories at lenovo.com/accessories														
• Roxio MyDVD® (DVD±RW)																	
• Corel® WinDVD® (DVD, DVD±RW)																	
												Security					
												• Security chip (see information on left) • Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons • Power-on password • Administrator password • Hard disk password (user and master) • Boot sequence control • Boot without diskette, keyboard • Serial port I/O control • Individual USB port disablement					
												Supports ThinkVantage® technologies					
												Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant					
												Limited Warranty ¹					
												⇒ 3-year parts and labor ⇒ International Warranty Service ⁹ ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ Onsite service upgrade options (in eligible locations): ⁷ • 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192) • 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193) • 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194) • 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195) • 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196) ⇒ ThinkPlus services at lenovo.com/thinkplus/warranty ⇒ Post warranty maintenance services available ⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378					

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date		
M58p	7220-AGU	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Apr 09	
<ul style="list-style-type: none">• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)• This model has a 3-year limited warranty¹																	
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA8 package in LGA775 socket										Small <div><div>optical</div><div>disk (in rear)</div></div>						
Implementation	Processor in FC-LGA8 package in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)						
Memory	2GB std, 8GB max ³ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Non-italics: standard memory in one socket; 3 sockets available																
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display																
DP dongle	DisplayPort to Single-link DVI-D Cable																
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																
eSATA port	One external SATA (eSATA) port																
Diskette drive	None																
Media reader	None																
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																
Speaker	One internal speaker for business audio																
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																
Intel AMT	Intel Active Management Technology (iAMT)																
Modem	None																
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																
Preloaded operating system²⁰							Accessories										
- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)							1GB PC3-8500 DDR3 UDIMM					45J5434					
							2GB PC3-8500 DDR3 UDIMM					45J5435					
							500GB SATA 3.0Gb/s Disk (7200 rpm)					43R1990					
							1TB SATA 3.0Gb/s Disk (7200 rpm)					45J7918					
Preloaded applications⁵							Super Multi-Burner DL DVD±RW SATA Drive					41N5620					
• Rescue and Recovery™							DisplayPort to Single-link DVI-D Cable					45J7915					
• Client Security Solution™							DisplayPort to VGA Monitor Cable					57Y4393					
• ThinkVantage Productivity Center							ATI™ Radeon™ HD 3470 256MB (DP, VGA)					45K1636					
• ThinkVantage System Update							NVIDIA® Quadro® 256MB NVS 290					43R1765					
• McAfee® VirusScan® Plus (30 days of virus definitions)							NVIDIA Quadro 256MB FX 370 LP					55Y9275					
• Lenovo System Toolbox							More accessories on O-M58 sheet										
• Adobe® Reader®							Acc Guide in pdf lenovo.com/accessoriesguide										
• Microsoft® Office 2007 Trial (60-day)							Other accessories at lenovo.com/accessories										
• Roxio® Creator® Business Edition (DVD±RW)																	
• Roxio MyDVD® (DVD±RW)																	
• Corel® WinDVD® (DVD±RW)																	
Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																	
Supports ThinkVantage® technologies																	
Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant																	
Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																	

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Chassis intr switch	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58p	6137-A2U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ² DVD	GMA	VGA, DP	None			vPro	Bus32	G P	Jan 09
M58p	6137-A1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB DVD±RW	GMA	VGA, DP	None		Switch	vPro	Bus32	G P	Nov 08
M58p	6137-A3U	2x3	Core 2 Duo E8400	3.00	2	3GB	160GB DVD	GMA	VGA, DP	None		Switch	vPro	Bus32	G P	Mar 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models are part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Small 																							
Implementation	Processor in FC-LGA8 package in LGA775 socket																									
Memory	2GB or 3GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																							
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB [2GB models], 1277MB [3GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement• <i>Some:</i> Chassis intrusion switch																							
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																									
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																									
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																									
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA Drive																									
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																									
eSATA port	One external SATA (eSATA) port																									
Diskette drive	None																									
Media reader	None																									
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																									
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																									
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																									
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																									
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																									
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																									
Speaker	One internal speaker for business audio																									
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																									
Intel AMT	Intel Active Management Technology (iAMT)																									
Modem	None																									
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																									
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																									
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																									
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs																									
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Business 32✦ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)		Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370 LP</td><td>55Y9275</td></tr><tr><td colspan="2">More accessories on O-M58 sheet</td></tr></table> <p>Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</p>	1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370 LP	55Y9275	More accessories on O-M58 sheet	
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More accessories on O-M58 sheet																										
		Supports ThinkVantage® technologies																								
		GREENGUARD® certified RoHS-compliant																								
		Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)➤ ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																								

See footnotes for important warranty information

US model announced February 17, 2009; previous models on October 21 or December 9, 2008

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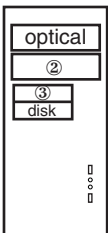
Name	Type-model	Slot x bay	Processor	GHz Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date																												
M58p	6234-A1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Bus32	G P	Nov 08																											
<ul style="list-style-type: none">• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)• This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty																																											
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA8 package in LGA775 socket									Small <div><div>optical</div><div>disk (in rear)</div></div>																																	
Implementation										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)																																	
Memory	2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available									Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																																	
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SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																																										
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Diskette drive	None																																										
Media reader	None																																										
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O									Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement• Chassis intrusion switch																																	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																										
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																																										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																																										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																																										
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																																										
Speaker	One internal speaker for business audio																																										
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																																										
Intel AMT	Intel Active Management Technology (iAMT)																																										
Modem	None																																										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																																										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																										
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																																										
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Business 32♦ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)									Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370 LP</td><td>55Y9275</td></tr></table> More accessories on O-M58 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories								1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370 LP	55Y9275	Supports ThinkVantage® technologies						
1GB PC3-8500 DDR3 UDIMM	45J5434																																										
2GB PC3-8500 DDR3 UDIMM	45J5435																																										
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																										
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									Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant																																		
									Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																		

ThinkCentre® M58p Tower (9965) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58p	9965-A6U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 09
M58p	9965-A7U	4x4	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> Intel® Core™ 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket										Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 																																
Implementation	Processor in LGA775 socket																																										
Memory	2GB or 4GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available																																										
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																																
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening																																										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																																										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																										
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																																										
eSATA port	None																																										
Diskette drive	None																																										
Media reader	None																																										
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																																										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																										
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																																										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																																										
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Speaker	One internal speaker for business audio																																										
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Modem	None																																										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																																										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																										
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																																										
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs																																										
Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional																																											
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)																																											
										Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB NVS 295</td><td>45K1669</td></tr></table> <p>More accessories on O-M58 sheet</p> <p>Acc Guide in pdf lenovo.com/accessoriesguide</p> <p>Other accessories at lenovo.com/accessories</p>										1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB NVS 295	45K1669
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DisplayPort to Single-link DVI-D Cable	45J7915																																										
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ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																										
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																										
NVIDIA Quadro® 256MB NVS 290	43R1765																																										
NVIDIA Quadro 256MB NVS 295	45K1669																																										
										Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																	

See footnotes for important warranty information

US models announced November 3, 2009

≈ US model withdrawn effective April 2010

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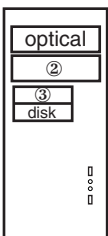
(MLAN4-16) November 2009

ThinkCentre® M58p Tower (9965) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
M58p	9965-A9U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	vPro	Pro 32	None	Jan 10
M58p	9965-ABU	4x4	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	Pro 32	None	Jan 10
M58p	9965-ACU	4x4	Core 2 Duo E8400	3.00	2	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	Pro 64	None	Mar 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket										Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 				
Implementation	Processor in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3				
Memory	2GB or 4GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available														
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB [2GB models] or 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display														
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support														
SATA controller	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA DVD±RW	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar														
SATA cables															
eSATA port	None														
Diskette drive	None														
Media reader	None														
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec														
Speaker	One internal speaker for business audio														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0														
Intel AMT	Intel Active Management Technology (iAMT)														
Modem	None														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs														
Preloaded operating system²⁰				Accessories											
- <i>Some:</i> Genuine Windows® 7 Professional 32				1GB PC3-8500 DDR3 UDIMM				45J5434							
- <i>Some:</i> Genuine Windows 7 Professional 64				2GB PC3-8500 DDR3 UDIMM				45J5435							
				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990							
				1TB SATA 3.0Gb/s Disk (7200 rpm)				45J7918							
				Super Multi-Burner DL DVD±RW SATA Drive				41N5620							
				Blu-ray™ Burner SATA 1.5Gb/s Drive				45K1675							
				DisplayPort to Single-link DVI-D Cable				45J7915							
				DisplayPort to VGA Monitor Cable				57Y4393							
				ATI™ Radeon™ HD 3470 256MB (DP, VGA)				45K1636							
				NVIDIA® GeForce® 9500GT 512MB (DP, DVI)				45K1635							
				NVIDIA Quadro® 256MB NVS 290				43R1765							
				NVIDIA Quadro 256MB NVS 295				45K1669							
				More accessories on O-M58 sheet											
				Acc Guide in pdf lenovo.com/accessoriesguide											
				Other accessories at lenovo.com/accessories											
Preloaded applications⁵ (only some listed)															
• Rescue and Recovery™															
• Password Manager															
• ThinkVantage System Update															
• ThinkVantage Power Manager															
• ThinkVantage Toolbox															
• Lenovo Online Data Backup															
• Norton™ Internet Security 2009 (30 days of virus definitions)															
• Adobe® Reader®															
• Adobe Flash® Player															
• Microsoft® Office 2007 Trial (60-day)															
• Roxio® Creator® Business Edition (DVD±RW)															
• Roxio MyDVD® (DVD±RW)															

- ⇒ **3-year parts and labor**
- ⇒ **International Warranty Service⁹**
- ⇒ **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)**
- ⇒ **Onsite service upgrade options (in eligible locations):⁷**
 - **3-year LOR 9x5, 4 hour response** (ThinkPlus™ part number 41C9192)
 - **3-year LOR 24x7, 4 hour response** (ThinkPlus part number 41C9193)
 - **4-year LOR 9x5, Next Business Day** (ThinkPlus part number 41C9194)
 - **4-year LOR 9x5, 4 hour response** (ThinkPlus part number 41C9195)
 - **4-year LOR 24x7, 4 hour response** (ThinkPlus part number 41C9196)
- ⇒ **ThinkPlus services at lenovo.com/thinkplus/warranty**
- ⇒ **Post warranty maintenance services available**
- ⇒ **24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378**

See footnotes for important warranty information

US model announced February 23, 2010; previous models on January 12, 2010

US model withdrawn effective April 2010

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(MLAN4-28) February 2010

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(MLAN1-12) November 2008

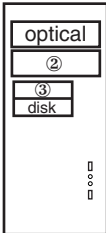
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58p	7484-B2U	4x4	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	XP Pro	None	Apr 09

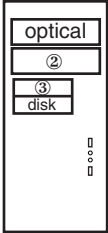
- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model has a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		<div>Tower</div> <div><ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention</div> <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>Bay ①</div><div>Bay ②</div><div>Bay ③</div><div>Bay ④</div></div>																													
Implementation	Processor in FC-LGA8 package in LGA775 socket																															
Memory	2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available																															
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display																															
DP dongle	DisplayPort to Single-link DVI-D Cable																															
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																															
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																															
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																															
eSATA port	None																															
Diskette drive	None																															
Media reader	None																															
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																															
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																															
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																															
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																															
Speaker	One internal speaker for business audio																															
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																															
Intel AMT	Intel Active Management Technology (iAMT)																															
Modem	None																															
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																															
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																															
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs																															
			<div>Security</div> <div><ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement</div>																													
			Supports ThinkVantage® technologies																													
<div><div><div>Preloaded operating system²⁰<ul style="list-style-type: none">- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)</div><div>Preloaded applications⁵<ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)</div></div><div><div>Accessories<table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB NVS 295</td><td>45K1669</td></tr><tr><td colspan="2">More accessories on O-M58 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table></div><div>GREENGUARD® certified RoHS-compliant</div></div></div>			1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB NVS 295	45K1669	More accessories on O-M58 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
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			<div>Limited Warranty¹</div> <div><div><div><div>➤ 3-year parts and labor</div><div>➤ International Warranty Service⁹</div><div>➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</div><div>➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</div></div><div>➤ ThinkPlus services at lenovo.com/thinkplus/warranty</div><div>➤ Post warranty maintenance services available</div><div>➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div></div>																													

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
M58p	7484-D1U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	Pro 32	None	Jan 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model has a 3-year limited warranty¹**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> Intel® Core™ 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache																										
Implementation	Processor in LGA775 socket																										
Memory	2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available																										
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display																										
DP dongle	DisplayPort to Single-link DVI-D Cable																										
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																								
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																										
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																										
eSATA port	None																										
Diskette drive	None																										
Media reader	None																										
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																										
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Modem	None																										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																										
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																										
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs																										
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32 Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)			Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB NVS 295</td><td>45K1669</td></tr></table> <p>More accessories on O-M58 sheet</p> <p>Acc Guide in pdf lenovo.com/accessoriesguide</p> <p>Other accessories at lenovo.com/accessories</p>	1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB NVS 295	45K1669
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			Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																								
			Supports ThinkVantage® technologies																								
			GREENGUARD® certified RoHS-compliant																								
			Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																								

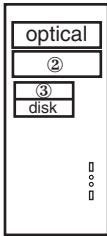
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload	Educ	Avail date
M58p	3063-B6U	4x4	Core 2 Duo E8400	3.00	2	2GB	320GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09
M58p	3063-B7U	4x4	Core 2 Duo E8400	3.00	2	2GB	320GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09
M58p	3063-B9U	4x4	Core 2 Duo E8500	3.16	2	2GB	320GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09
M58p	3063-B8U	4x4	Core 2 Duo E8500	3.16	2	2GB	320GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09
≡ M58p	3063-BBU	4x4	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09
<ul style="list-style-type: none">• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)• These models have a 3-year limited warranty¹																
Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Implementation Processor in LGA775 socket									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention						
Memory	2GB or 4GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)* Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3 * used in some models						
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> ATI™ Radeon™ HD 3470 , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts															
DP dongle	DisplayPort to Single-link DVI-D Cable															
SATA disk	320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement						
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support															
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive															
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar															
eSATA port	None									Supports ThinkVantage® technologies Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant						
Diskette drive	None															
Media reader	None															
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)									Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378						
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)															
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Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0															
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Modem	None									Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional						
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo															
Power supply	280 watts with variable speed fan, autosensing, 85% PSU									Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)						
Preloaded operating system²⁰																
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Preloaded applications⁵ (only some listed)																

See footnotes for important warranty information

US models announced October 22, 2009

≡ US model withdrawn effective April 2010

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58p	6138-A1U	4x4	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	vPro	Bus32	G P	Nov 08
<ul style="list-style-type: none">• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)• This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty															
Positioning	Ultimate security, stability, and manageability for the enterprise									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>•••••</div></div> <p>Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk</p> <p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3</p>					
Processor	Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache														
Implementation	Processor in FC-LGA8 package in LGA775 socket														
Memory	2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available														
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display														
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement• Chassis intrusion switch					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1														
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar														
eSATA port	None														
Diskette drive	None														
Media reader	None														
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec														
Speaker	One internal speaker for business audio														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0														
Intel AMT	Intel Active Management Technology (iAMT)														
Modem	None														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs														
Preloaded operating system²⁰			Accessories												
- Genuine Windows® Vista® Business 32			1GB PC3-8500 DDR3 UDIMM			45J5434									
✦ Vista Premium logo			2GB PC3-8500 DDR3 UDIMM			45J5435									
Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)			500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990									
			1TB SATA 3.0Gb/s Disk (7200 rpm)			45J7918									
			Super Multi-Burner DL DVD±RW SATA Drive			41N5620									
			Blu-ray™ Burner SATA 1.5Gb/s Drive			45K1675									
			DisplayPort to Single-link DVI-D Cable			45J7915									
			DisplayPort to VGA Monitor Cable			57Y4393									
			ATI™ Radeon™ HD 3470 256MB (DP, VGA)			45K1636									
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)			45K1635												
NVIDIA Quadro® 256MB NVS 290			43R1765												
NVIDIA Quadro 256MB NVS 295			45K1669												
			More accessories on O-M58 sheet												
			Acc Guide in pdf lenovo.com/accessoriesguide												
			Other accessories at lenovo.com/accessories												
Supports ThinkVantage® technologies															
GREENGUARD® certified RoHS-compliant															
Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378															

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win 7 preload	Global (G) GMP (P)	Avail date
M58p	3285-A1U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Pro 32	G P	Oct 09
<ul style="list-style-type: none">• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)• This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty																
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention						
Implementation	Processor in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk						
Memory	2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available									Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3						
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display															
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1															
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive															
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar															
eSATA port	None															
Diskette drive	None															
Media reader	None															
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O												Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)															
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)															
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)															
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec															
Speaker	One internal speaker for business audio															
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0															
Intel AMT	Intel Active Management Technology (iAMT)															
Modem	None															
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo															
Power supply	280 watts with variable speed fan, autosensing, 85% PSU															
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32							Accessories 1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635 NVIDIA Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB NVS 295 45K1669 More accessories on O-M58 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories									
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)							Supports ThinkVantage® technologies Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant									
							Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378									

Partial list of accessories supported on ThinkCentre M58 and M58p**Memory**

Eco Ultra Small 8820/7359/7637/9961/7479/6136 use notebook memory:

1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	ann 08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann 03/17/09
2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	ann 08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann 03/17/09
1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09

Small 8910/7360/6258/7638/9964/7483/7220/6137/6234, and

Tower 9960/7373/6239/9965/7484/7188/6138/6209/3063/3285/9728/7639 use desktop memory:

1GB PC3-8500 DDR3 UDIMM	45J5434	ann 11/18/08
1GB PC3-8500 DDR3 UDIMM (25-Pack)	57Y4421	ann 11/10/09
2GB PC3-8500 DDR3 UDIMM	45J5435	ann 11/18/08
2GB PC3-8500 DDR3 UDIMM (25-Pack)	57Y4422	ann 11/10/09

Optical

All:

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Tower 9960/7373/6239/9965/7484/7188/6138/6209/3063/3285/9728/7639 support:

Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ann 03/31/09
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Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08
150GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2030	ann 03/31/09

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Graphics

Small 8910/7360/6258/7638/9964/7483/7220/6137/6234 support Low Profile:

ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® Quadro® 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB FX 370 Low-Profile	55Y9275	ann 07/28/09
NVIDIA GeForce® 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

Tower 9960/7373/6239/9965/7484/7188/6138/6209/3063/3285/9728/7639 support 75 watts max:

ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA Quadro 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB NVS 295	45K1669	ann 04/21/09
NVIDIA GeForce 9500 GT 512MB (DP, DVI)	45K1635	ann 11/18/08
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

More information at www.lenovo.com/support/graphiccards

Keyboard

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Preferred Pro Full Size PS/2 Keyboard	31P7415	ann 06/04/02
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at www.lenovo.com/support/keyboards

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse(USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08

More information at www.lenovo.com/support/mice

Multimedia

ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

⁵⁶ Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

Mounting Device

Eco Ultra Small 8820/7359/7637/9961/7479/6136 support under desk mounting device:

ThinkCentre Ultra Small Under Desk Mount	40Y8625	ann 09/06/05
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Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

More information at www.lenovo.com/thinkvision

Monitor Accessories⁴⁶

Eco Ultra Small 8820/7359/7637/9961/7479/6136 support:

Lenovo Vertical PC and Monitor Stand II	41R4474	ann 01/27/09
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All:

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
DisplayPort™ to Single-link DVI-D Cable	45J7915	ann 08/05/08
DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/desktopaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkCentre M90/M90p Eco USFF



Lenovo ThinkCentre M90/M90p Eco USFF



Lenovo ThinkCentre M90/M90p SFF



Lenovo ThinkCentre M90/M90p SFF
with ThinkVision L2251x (2578-HB6)



Lenovo ThinkCentre M90/M90p Tower



Lenovo ThinkCentre M90/M90p Tower

ThinkCentre® M90 Eco Ultra Small (3244) - TopS (XP with Win7 License)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
3244-A1U	1x2	Core i3-530	2.93	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
3244-A2U	1x2	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> Intel® Pentium® Processor G6950 with dual-core , Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core , Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		Eco Ultra Small <div><div>optical</div><div>disk</div></div>															
Implementation			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3															
Memory	2GB std , 4GB max, PC3-10600 1333MHz DDR3* , two 204-pin SODIMM sockets (notebook); <i>Non-italics:</i> standard memory in one socket; one socket available * System automatically clocks down for processors with 1066MHz DDR3 memory controller		<ul style="list-style-type: none">• Business black color; metal case• 11.0" W X 9.4" D X 3.1" H• 279mm W X 238mm D X 79mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• System floor stand for vertical orientation															
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later																	
DP dongle	None																	
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm																	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																	
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical																	
eSATA port	None																	
Diskette drive	None																	
Media reader	None																	
Chipset	Intel Q57 Express Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O																	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																	
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																	
Speaker	Internal speaker for business audio																	
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																	
Intel AMT	None																	
Modem	None																	
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																	
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																	
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																	
Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)																		
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo System Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)• Corel WinDVD® (DVD±RW)																		
Accessories <table><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>Lenovo Vertical PC and Monitor Stand II</td><td>41R4474</td></tr><tr><td>ThinkCentre Ultra Small Under Desk Mount</td><td>40Y8625</td></tr></table> More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625		
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			Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant															
			Supports ThinkVantage® technologies															
			Limited Warranty ¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378															

See footnotes for important warranty information

US models announced January 15, 2010

⚡ US model withdrawn effective February 2010

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(MELB1-7) January 2010

Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3244-A8U	1x2	Core i3-530	2.93	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Mar 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i3 Processor i3-530 with dual-core, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket			Eco Ultra Small <div><div>optical</div><div>disk</div></div>	
Implementation				Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3	
Memory	2GB std, 4GB max, PC3-10600 1333MHz DDR3, two 204-pin SODIMM sockets (notebook); <i>Non-italics:</i> standard memory in one socket; one socket available			<ul style="list-style-type: none">• Business black color; metal case• 11.0" W X 9.4" D X 3.1" H• 279mm W X 238mm D X 79mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• System floor stand for vertical orientation	
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display			<div>Security<ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Individual USB port disablement</div> <div>Environmental Features<ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant</div> <div>Supports ThinkVantage® technologies</div> <div>Limited Warranty¹<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div>	
DP dongle	None				
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical				
eSATA port	None				
Diskette drive	None				
Media reader	None				
Chipset	Intel Q57 Express Chipset, Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)				
Audio	High Definition (HD) Audio, Realtek® ALC662 codec				
Speaker	Internal speaker for business audio				
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®				
Intel AMT	None				
Modem	None				
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo				
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo				
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU				
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				Accessories 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 Lenovo Vertical PC and Monitor Stand II 41R4474 ThinkCentre Ultra Small Under Desk Mount 40Y8625 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	
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Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
3692-A1U	1x2	Pentium G6950	2.80	2	1GB	250GB ²	DVD	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
3692-A2U	1x2	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
3692-A3U	1x2	Core i3-530	2.93	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10

- **Most powerful, stable, and manageable desktop with next generation Intel platform**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor G6950 with dual-core , Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core , Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		<div>Eco Ultra Small<div><div>optical</div><div>disk</div><div></div></div></div> <div>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3</div> <div><ul style="list-style-type: none">• Business black color; metal case• 11.0" W X 9.4" D X 3.1" H• 279mm W X 238mm D X 79mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• System floor stand for vertical orientation</div>																	
Implementation			<div>Security</div> <div><ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Individual USB port disablement</div> <div>Environmental Features</div> <div><ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant</div> <div>Supports ThinkVantage® technologies</div> <div>Limited Warranty¹</div> <div><div><div>⇒ 3-year parts and labor</div><div>⇒ International Warranty Service⁹</div><div>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</div><div>⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</div><div>⇒ ThinkPlus services at lenovo.com/thinkplus/warranty</div><div>⇒ Post warranty maintenance services available</div><div>⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div></div>																	
Memory	1GB or 2GB std , 4GB max, PC3-10600 1333MHz DDR3* , two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available * System automatically clocks down for processors with 1066MHz DDR3 memory controller																			
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 512MB [<i>1GB model</i>], 1GB [<i>2GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later None																			
DP dongle	None																			
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm																			
SATA DVD	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive																			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																			
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical																			
eSATA port	None																			
Diskette drive	None																			
Media reader	None																			
Chipset	Intel Q57 Express Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O																			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																			
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																			
Speaker	Internal speaker for business audio																			
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																			
Intel AMT	None																			
Modem	None																			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																			
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																			
<div><div><div>Preloaded operating system²⁰</div><div><ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)</div></div><div><div>Preloaded applications⁵ (only some listed)</div><div><ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo System Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)• Corel WinDVD® (DVD, DVD±RW)</div></div></div> <div><div>Accessories</div><div><table><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>Lenovo Vertical PC and Monitor Stand II</td><td>41R4474</td></tr><tr><td>ThinkCentre Ultra Small Under Desk Mount</td><td>40Y8625</td></tr></table><div>More accessories on O-M90 sheet</div><div>Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</div></div></div>					500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625
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ThinkCentre® M90 Eco Ultra Small (3692) - Windows 7

Personal Systems Reference (PSREF)

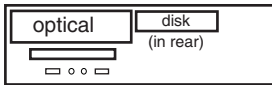
Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3692-A4U	1x2	Core i3-530	2.93	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Feb 10
3692-E7U	1x2	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Feb 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor G6950 with dual-core , Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core , Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket			Eco Ultra Small <div><div>optical</div><div>disk</div><div>□ ○ □</div></div> <p>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none">• Business black color; metal case• 11.0" W X 9.4" D X 3.1" H• 279mm W X 238mm D X 79mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• System floor stand for vertical orientation																						
Implementation																										
Memory	2GB std, 4GB max, PC3-10600 1333MHz DDR3* , two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available * System automatically clocks down for processors with 1066MHz DDR3 memory controller																									
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display None																									
DP dongle	None			Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Individual USB port disablement																						
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm																									
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																									
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical																									
eSATA port	None																									
Diskette drive	None																									
Media reader	None																									
Chipset	Intel Q57 Express Chipset, Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O			Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant																						
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																									
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Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32				Limited Warranty ¹ ⇨ 3-year parts and labor ⇨ International Warranty Service ⁹ ⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇨ Onsite service upgrade options (in eligible locations): ⁷ <ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196) ⇨ ThinkPlus services at lenovo.com/thinkplus/warranty ⇨ Post warranty maintenance services available ⇨ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378																						
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See footnotes for important warranty information
 US models announced January 15, 2010

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 (MELB1-9) January 2010

Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date	
3245-A1U	2x3	Core i3-530	2.93	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
3245-A2U	2x3	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
3245-A8U	2x3	Core i5-750	2.66	4	3GB	500GB	DVD±RW	310	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
<ul style="list-style-type: none">• The most powerful, stable, and manageable desktop with next generation Intel platform• These small and medium business (SMB) models are part of the US TopSeller™ Program• These models have a 3-year limited warranty¹																
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor G6950 with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or Intel Core i5 Processor i5-750 with quad-core, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket								Small							
Implementation											Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless system board retention• System floor stand for vertical orientation					
Memory	2GB or 3GB std , 8GB max, UDIMM, PC3-10600 1333MHz DDR3* , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available * System automatically clocks down for processors with 1066MHz DDR3 memory controller															
Graphics	A1U/A2U: Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display A8U: NVIDIA® GeForce® 310 , PCIe x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts ** DirectX 10 is only available with Windows Vista and later								Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement							
DP dongle	None															
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm															
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive															
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical															
eSATA port	None															
Diskette drive	None															
Media reader	None															
Chipset	Intel Q57 Express Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)								Environmental Features							
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)								<ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant							
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)															
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)															
Audio	High Definition (HD) Audio, Realtek® ALC662 codec															
Speaker	Internal speaker for business audio															
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®															
Intel AMT	None															
Modem	None															
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo															
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction															
Preloaded operating system²⁰		Accessories														
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)		1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397 NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories														
Preloaded applications⁵ (only some listed)																
• Rescue and Recovery™																
• Client Security Solution™																
• ThinkVantage Productivity Center																
• ThinkVantage System Update																
• ThinkVantage Power Manager																
• Lenovo System Toolbox																
• Norton™ Internet Security 2009 (30-day)																
• Adobe® Reader®																
• Adobe Flash® Player																
• Skype™ for Windows																
• Microsoft® Office 2007 Trial (60-day)																
• Corel® Burn.Now™ (DVD±RW)																
• Corel DVD MovieFactory® (DVD±RW)																
• Corel WinDVD® (DVD±RW)																

See footnotes for important warranty information
 US models announced January 15, 2010

⚡ US model withdrawn effective February 2010

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Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3245-A9U	2x3	Core i3-530	2.93	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Mar 10
3245-B3U	2x3	Core i3-530	2.93	2	4GB	320GB	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 64	None	Mar 10
3245-B1U	2x3	Core i5-750	2.66	4	3GB	500GB	DVD±RW	310	VGA, DP	ES50	None	Pro 32	None	Mar 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i3 Processor i3-530 with dual-core , Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or Intel Core i5 Processor i5-750 with quad-core , Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket		Small <div><div>optical</div><div>disk (in rear)</div></div>	
Implementation			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3	
Memory	2GB, 3GB, or 4GB std , 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available		<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless system board retention• System floor stand for vertical orientation	
Graphics	A9U/B3U: Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB models], 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display B1U: NVIDIA® GeForce® 310 , PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts			
DP dongle	None			
SATA disk	250GB, 320GB, or 500GB , SATA 3.0Gb/s 7200 rpm			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	Intel Q57 Express Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	Internal speaker for business audio			
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo			
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction			
Preloaded operating system ²⁰		Accessories		
- <i>Some:</i> Genuine Windows® 7 Professional 32		1GB PC3-10600 DDR3 UDIMM 57Y4389		
- <i>Some:</i> Genuine Windows 7 Professional 64		2GB PC3-10600 DDR3 UDIMM 57Y4390		
		500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
		1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918		
		Super Multi-Burner DL DVD±RW SATA Drive 41N5620		
		DisplayPort to Single-link DVI-D Cable 45J7915		
		DisplayPort to VGA Monitor Cable 57Y4393		
		NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397		
		NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396		
		More accessories on O-M90 sheet		
		Acc Guide in pdf lenovo.com/accessoriesguide		
		Other accessories at lenovo.com/accessories		
Preloaded applications ⁵ (all OSes; only some listed)				
• Rescue and Recovery™				
• Password Manager				
• ThinkVantage System Update				
• ThinkVantage Power Manager				
• ThinkVantage Toolbox				
• Norton™ Internet Security 2009 (30 days of virus definitions)				
• Adobe® Reader®				
• Adobe Flash® Player				
• Skype™ for Windows				
• Microsoft® Office 2007 Trial (60-day)				
• Corel® Burn.Now™ (DVD±RW)				
• Corel DVD MovieFactory® (DVD±RW)				

See footnotes for important warranty information
 US models announced March 2, 2010

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ThinkCentre® M90 Small (5485) - XP with Win7 License

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date	
5485-A1U	2x3	Pentium G6950	2.80	2	1GB	250GB ²	DVD	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
5485-A2U	2x3	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
5485-A3U	2x3	Core i3-530	2.93	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
5485-A4U	2x3	Core i5-750	2.66	4	3GB	500GB	DVD±RW	310	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
<ul style="list-style-type: none">• The most powerful, stable, and manageable desktop with next generation Intel platform• These models have a 3-year limited warranty¹																
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor G6950 with dual-core , Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core , Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or Intel Core i5 Processor i5-750 with quad-core , Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket								<div>Small<div><div>optical</div><div>disk (in rear)</div></div><div>Bay ① 5.25", 1.6" high, access, std optical</div><div>Bay ② 3.5", 1" high, no access, std disk</div><div>Bay ③ 3.5", .5" high, access, open (reader)</div><div>Slot 1: Low Profile, PCI Express 2.0 x16 (75w max)</div><div>Slot 2: Low Profile, 32-bit PCI 2.3</div><ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless system board retention• System floor stand for vertical orientation</div>							
Implementation																
Memory	1GB, 2GB, or 3GB std , 8GB max, UDIMM, PC3-10600 1333MHz DDR3* , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available * System automatically clocks down for processors with 1066MHz DDR3 memory controller															
Graphics	A1U/A2U/A3U: Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 512MB [<i>1GB model</i>], 1GB [<i>2GB and 3GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display A4U: NVIDIA® GeForce® 310 , PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts ** DirectX 10 is only available with Windows Vista and later								Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement							
DP dongle	None															
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm															
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive															
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive															
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical															
eSATA port	None															
Diskette drive	None															
Media reader	None															
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O								Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant							
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)															
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)															
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)								Supports ThinkVantage® technologies							
Audio	High Definition (HD) Audio, Realtek® ALC662 codec															
Speaker	Internal speaker for business audio															
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®															
Intel AMT	None															
Modem	None															
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo															
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction															
Preloaded operating system²⁰			Accessories													
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)			1GB PC3-10600 DDR3 UDIMM			57Y4389										
			2GB PC3-10600 DDR3 UDIMM			57Y4390										
			500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990										
			1TB SATA 3.0Gb/s Disk (7200 rpm)			45J7918										
			DVD-ROM DL SATA 1.5Gb/s 16X-48X Max			41N5618										
			Super Multi-Burner DL DVD±RW SATA Drive			41N5620										
			DisplayPort to Single-link DVI-D Cable			45J7915										
			DisplayPort to VGA Monitor Cable			57Y4393										
			NVIDIA GeForce 512MB 310 (DP, VGA)			57Y4397										
			NVIDIA Quadro® 512MB FX380 LP (DP, DVI)			57Y4396										
			More accessories on O-M90 sheet													
			Acc Guide in pdf lenovo.com/accessoriesguide													
			Other accessories at lenovo.com/accessories													
Preloaded applications⁵ (only some listed)																
• Rescue and Recovery™																
• Client Security Solution™																
• ThinkVantage Productivity Center																
• ThinkVantage System Update																
• ThinkVantage Power Manager																
• Norton™ Internet Security 2009 (30-day)																
• Microsoft® Office 2007 Trial (60-day)																
• Corel® Burn.Now™ (DVD±RW)																
• Corel DVD MovieFactory® (DVD±RW)																
• Corel WinDVD® (DVD, DVD±RW)																
<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																

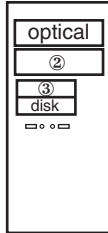
See footnotes for important warranty information
 US models announced January 15, 2010

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Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
5485-A5U	2x3	Core i3-530	2.93	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Feb 10
5485-E3U	2x3	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Feb 10
5485-E4U	2x3	Core i5-750	2.66	4	3GB	500GB	DVD±RW	310	VGA, DP	ES50	None	Pro 32	None	Feb 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor G6950 with dual-core , Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core , Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or Intel Core i5 Processor i5-750 with quad-core , Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket					Small	<div><div>optical</div><div>disk (in rear)</div></div> <div>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3 • Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless system board retention • System floor stand for vertical orientation</div>					
Implementation												
Memory	2GB or 3GB std, 8GB max, UDIMM, PC3-10600 1333MHz DDR3* , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available * System automatically clocks down for processors with 1066MHz DDR3 memory controller											
Graphics	A5U/E3U: Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display E4U: NVIDIA® GeForce® 310 , PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts					Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement						
DP dongle	None											
SATA disk	250GB or 500GB, SATA 3.0Gb/s 7200 rpm											
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive											
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical											
eSATA port	None											
Diskette drive	None											
Media reader	None											
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O					Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant						
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)					• Supports ThinkVantage® technologies						
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)											
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)											
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)											
Audio	High Definition (HD) Audio, Realtek® ALC662 codec											
Speaker	Internal speaker for business audio											
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®											
Intel AMT	None											
Modem	None											
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant					Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378						
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo											
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo											
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction											
<table><tr><td>Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32</td><td>Accessories 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397 NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</td><td></td></tr><tr><td>Preloaded applications⁵ (only some listed)<ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)</td><td></td><td></td></tr></table>							Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32	Accessories 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397 NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)		
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32	Accessories 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397 NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories											
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)												

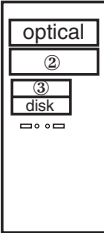
Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	vPro	Preload	Recovery DVD	Global Educ	Avail date						
3246-A1U	4x4	Pentium G6950	2.80	2	2GB	250GB ²	None	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10						
3246-A2U	4x4	Core i3-530	2.93	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10						
3246-A9U	4x4	Core i5-750	2.66	4	3GB	500GB	None	DVD±RW	310	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10						
<ul style="list-style-type: none">• The most powerful, stable, and manageable desktop with next generation Intel platform• These small and medium business (SMB) models are part of the US TopSeller™ Program• These models have a 3-year limited warranty¹																						
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor G6950 with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core, Intel 64, Intel Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or Intel Core i5 Processor i5-750 with quad-core, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.4" D X 16.3" H• 175mm W X 442mm D X 414mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Power button on top handle• Toolless cover removal• Tilted front I/O for easy access• Toolless disk, optical drive removal• Toolless adapter retention 												
Implementation																						
Memory	2GB or 3GB std, 8GB max, UDIMM, PC3-10600 1333MHz DDR3³ , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available * System automatically clocks down for processors with 1066MHz DDR3 memory controller									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3												
Graphics	A1U/A2U: Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display A9U: NVIDIA® GeForce® 310 , PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts ** DirectX 10 is only available with Windows Vista and later												Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement									
DP dongle	None																					
SATA disk	250GB or 500GB, SATA 3.0Gb/s 7200 rpm																					
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																					
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical																					
eSATA port	None																					
Diskette drive	None																					
Media reader	None																					
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O												Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant									
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)												Supports ThinkVantage® technologies									
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																					
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																					
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																					
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																					
Speaker	Internal speaker for business audio																					
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																					
Intel AMT	None																					
Modem	None																					
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant												Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service®➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)➤ ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378									
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																					
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																					
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																					
<table><tr><td>Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)</td><td>Accessories 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</td><td></td></tr><tr><td>Preloaded applications⁵ (only some listed) • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo System Toolbox • Norton™ Internet Security 2009 (30-day) • Adobe® Reader® • Microsoft® Office 2007 Trial (60-day) • Corel® Burn.Now™ (DVD±RW) • Corel DVD MovieFactory® (DVD±RW) • Corel WinDVD® (DVD±RW)</td><td></td><td></td></tr></table>																	Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)	Accessories 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		Preloaded applications⁵ (only some listed) • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo System Toolbox • Norton™ Internet Security 2009 (30-day) • Adobe® Reader® • Microsoft® Office 2007 Trial (60-day) • Corel® Burn.Now™ (DVD±RW) • Corel DVD MovieFactory® (DVD±RW) • Corel WinDVD® (DVD±RW)		
Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)	Accessories 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories																					
Preloaded applications⁵ (only some listed) • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo System Toolbox • Norton™ Internet Security 2009 (30-day) • Adobe® Reader® • Microsoft® Office 2007 Trial (60-day) • Corel® Burn.Now™ (DVD±RW) • Corel DVD MovieFactory® (DVD±RW) • Corel WinDVD® (DVD±RW)																						

See footnotes for important warranty information
 US models announced January 15, 2010

⚡ US model withdrawn effective February 2010

Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3246-B1U	4x4	Core i3-530	2.93	2	2GB	250GB ²	None	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Mar 10
3246-B2U	4x4	Core i5-750	2.66	4	3GB	500GB	None	DVD±RW	310	VGA, DP	ES50	None	Pro 32	None	Mar 10
3246-B4U	4x4	Core i3-530	2.93	2	4GB	320GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 64	None	Mar 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

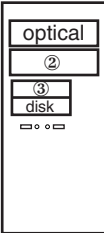
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i3 Processor i3-530 with dual-core , Intel 64, Intel Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or Intel Core i5 Processor i5-750 with quad-core , Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.4" D X 16.3" H• 175mm W X 442mm D X 414mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Power button on top handle• Toolless cover removal• Tilted front I/O for easy access• Toolless disk, optical drive removal• Toolless adapter retention 
Implementation			Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk
Memory	2GB, 3GB, or 4GB std , 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
Graphics	B1U/B4U: Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB models], 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display B2U: NVIDIA® GeForce® 310 , PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts		
DP dongle	None		Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement
SATA disk	250GB, 320GB, or 500GB , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical		
eSATA port	None		
Diskette drive	None		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant
Media reader	None		
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		Supports ThinkVantage® technologies
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	None		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		
Preloaded operating system²⁰		Accessories	
- <i>Some:</i> Genuine Windows® 7 Professional 32		1GB PC3-10600 DDR3 UDIMM	57Y4389
- <i>Some:</i> Genuine Windows 7 Professional 64		2GB PC3-10600 DDR3 UDIMM	57Y4390
		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
		Super Multi-Burner DL DVD±RW SATA Drive	41N5620
		DisplayPort to Single-link DVI-D Cable	45J7915
		DisplayPort to VGA Monitor Cable	57Y4393
		NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397
		More accessories on O-M90 sheet	
		Acc Guide in pdf lenovo.com/accessoriesguide	
		Other accessories at lenovo.com/accessories	
Preloaded applications⁵ (all OSes; only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)			

See footnotes for important warranty information
 US models announced March 2, 2010

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ThinkCentre® M90 Tower (5474) - XP with Win7 License

Personal Systems Reference (PSREF)

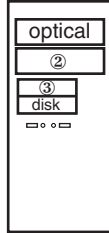
Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date	
5474-A1U	4x4	Pentium G6950	2.80	2	1GB	250GB ²	None	DVD	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
5474-A2U	4x4	Pentium G6950	2.80	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
5474-A3U	4x4	Core i3-530	2.93	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
5474-A4U	4x4	Core i5-750	2.66	4	3GB	500GB	None	DVD±RW	310	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
<ul style="list-style-type: none">• The most powerful, stable, and manageable desktop with next generation Intel platform• These models have a 3-year limited warranty¹																	
Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor G6950 with dual-core , Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core , Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or Intel Core i5 Processor i5-750 with quad-core , Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.4" D X 16.3" H• 175mm W X 442mm D X 414mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Power button on top handle• Toolless cover removal• Tilted front I/O for easy access• Toolless disk, optical drive removal• Toolless adapter retention							
Implementation																	
Memory	1GB, 2GB, or 3GB std, 8GB max, UDIMM, PC3-10600 1333MHz DDR3* , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available * System automatically clocks down for processors with 1066MHz DDR3 memory controller									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk			Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3				
Graphics	A1U/A2U/A3U: Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 512MB [1GB model], 1GB [2GB and 3GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display A4U: NVIDIA® GeForce® 310, PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts ** DirectX 10 is only available with Windows Vista and later																
DP dongle	None									Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement							
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm																
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive																
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical																
eSATA port	None																
Diskette drive	None																
Media reader	None																
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O									Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant							
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																
Speaker	Internal speaker for business audio																
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																
Intel AMT	None																
Modem	None																
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																
Power supply	280 watts with variable speed fan, autosenesing, 85% PSU																
Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD) Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• Norton™ Internet Security 2009 (30-day)• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)• Corel WinDVD® (DVD, DVD±RW) Accessories <ul style="list-style-type: none">1GB PC3-10600 DDR3 UDIMM 57Y43892GB PC3-10600 DDR3 UDIMM 57Y4390500GB SATA 3.0Gb/s Disk (7200 rpm) 43R19901TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618Super Multi-Burner DL DVD±RW SATA Drive 41N5620DisplayPort to Single-link DVI-D Cable 45J7915DisplayPort to VGA Monitor Cable 57Y4393NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397More accessories on O-M90 sheetAcc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories																	
Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																	

See footnotes for important warranty information
 US models announced January 15, 2010

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Type-model	Slot x bay	Processor	GHz Cores	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
5474-A5U	4x4	Core i3-530	2.93	2	2GB	250GB ²	None	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None Feb 10
5474-D4U	4x4	Pentium G6950	2.80	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None Feb 10
5474-D5U	4x4	Core i5-750	2.66	4	3GB	500GB	None	DVD±RW	310	VGA, DP	ES50	None	Pro 32	None Feb 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Pentium® Processor G6950 with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or Intel Core i5 Processor i5-750 with quad-core, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.4" D X 16.3" H• 175mm W X 442mm D X 414mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Power button on top handle• Toolless cover removal• Tilted front I/O for easy access• Toolless disk, optical drive removal• Toolless adapter retention 
Implementation	Processor in LGA1156 socket		
Memory	2GB or 3GB std. , 8GB max, UDIMM, PC3-10600 1333MHz DDR3* , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available * System automatically clocks down for processors with 1066MHz DDR3 memory controller		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk
Graphics	A5U/D4U: Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB models], 1277MB [3GB model]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display D5U: NVIDIA® GeForce® 310 , PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
DP dongle	None		Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical		
eSATA port	None		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant
Diskette drive	None		
Media reader	None		
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		Supports ThinkVantage® technologies
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	None		
Modem	None		Accessories
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		
Preloaded operating system²⁰			
- Genuine Windows® 7 Professional 32			
Preloaded applications⁵ (only some listed)			
• Rescue and Recovery™			
• Password Manager			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• ThinkVantage Toolbox			
• Norton™ Internet Security 2009 (30 days of virus definitions)			
• Adobe® Reader®			
• Adobe Flash® Player			
• Skype™ for Windows			
• Microsoft® Office 2007 Trial (60-day)			
• Corel® Burn.Now™ (DVD±RW)			
• Corel DVD MovieFactory® (DVD±RW)			

See footnotes for important warranty information
 US models announced January 15, 2010

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ThinkCentre® M90p Eco Ultra Small (3257) - TopS (XP with Win7 License) Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ⁸	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
3257-A1U	1x2	Core i5-650	3.20	3.46	2	3GB	500GB ²	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
3257-A2U	1x2	Core i5-660	3.33	3.60	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10

- **Next generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 or i5-660 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		Eco Ultra Small <div><div>optical</div><div>disk</div></div> <p>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk</p> <p>Slot 1: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none">• Business black color; metal case• 11.0" W X 9.4" D X 3.1" H• 279mm W X 238mm D X 79mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• System floor stand for vertical orientation	
Implementation				
Memory	3GB std , 4GB max, PC3-10600 1333MHz DDR3 , two 204-pin SODIMM sockets (notebook); <i>Italics</i> : standard memory in both sockets; no sockets available		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Individual USB port disablement	
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later			
DP dongle	None		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant	
SATA disk	500GB , SATA 3.0Gb/s 7200 rpm			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		Supports ThinkVantage® technologies	
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical			
eSATA port	None		Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)➤ ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378	
Diskette drive	None			
Media reader	None			
Chipset	Intel Express Q57 Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	Internal speaker for business audio			
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®			
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)			
Modem	None			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo			
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU			
Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)		Accessories <ul style="list-style-type: none">500GB SATA 3.0Gb/s Disk (7200 rpm) 43R19901TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918Super Multi-Burner DL DVD±RW SATA Drive 41N5620DisplayPort to Single-link DVI-D Cable 45J7915DisplayPort to VGA Monitor Cable 57Y4393Lenovo Vertical PC and Monitor Stand II 41R4474ThinkCentre Ultra Small Under Desk Mount 40Y8625More accessories on O-M90 sheetAcc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories		
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo System Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)• Corel WinDVD® (DVD±RW)				

See footnotes for important warranty information
US models announced January 15, 2010
⚡ US model withdrawn effective February 2010

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(MELB1-4) January 2010

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ^a	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3257-A5U	1x2	Core i5-650	3.20	3.46	2	3GB	500GB ²	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Mar 10

- **Next generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty¹**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		Eco Ultra Small <div><div>optical</div><div>disk</div><div>□ ○ □</div></div>		
Implementation	Processor in LGA1156 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk		
Memory	3GB std , 4GB max, PC3-10600 1333MHz DDR3 , two 204-pin SODIMM sockets (notebook); <i>Italics</i> : standard memory in both sockets; no sockets available		Slot 1: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 11.0" W X 9.4" D X 3.1" H• 279mm W X 238mm D X 79mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• System floor stand for vertical orientation		
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 1277MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Individual USB port disablement		
DP dongle	None				
SATA disk	500GB , SATA 3.0Gb/s 7200 rpm				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant		
eSATA port	None				
Diskette drive	None				
Media reader	None				
Chipset	Intel Express Q57 Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		Supports ThinkVantage® technologies		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)				
Audio	High Definition (HD) Audio, Realtek® ALC662 codec				
Speaker	Internal speaker for business audio				
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®				
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)				
Modem	None				
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Supports ThinkVantage® technologies		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo				
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU				
Preloaded operating system ²⁰		Accessories			
- Genuine Windows® 7 Professional 32		500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
Preloaded applications ⁵ (only some listed)		1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
• Rescue and Recovery™		Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
• Password Manager		DisplayPort to Single-link DVI-D Cable 45J7915			
• ThinkVantage System Update		DisplayPort to VGA Monitor Cable 57Y4393			
• ThinkVantage Power Manager		Lenovo Vertical PC and Monitor Stand II 41R4474			
• ThinkVantage Toolbox		ThinkCentre Ultra Small Under Desk Mount 40Y8625			
• Norton™ Internet Security 2009 (30 days of virus definitions)		More accessories on O-M90 sheet			
• Adobe® Reader®		Acc Guide in pdf lenovo.com/accessoriesguide			
• Adobe Flash® Player		Other accessories at lenovo.com/accessories			
• Skype™ for Windows					
• Microsoft® Office 2007 Trial (60-day)					
• Corel® Burn.Now™ (DVD±RW)					
• Corel DVD MovieFactory® (DVD±RW)					

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ^a	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
3853-A1U	1x2	Core i5-650	3.20	3.46	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
3853-A2U	1x2	Core i5-650	3.20	3.46	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
3853-A3U	1x2	Core i5-660	3.33	3.60	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10

- **Next generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **These models have a 3-year limited warranty¹**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 or i5-660 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		Eco Ultra Small <div><div>optical</div><div>disk</div><div>□ ● □</div></div>														
Implementation	Processor in LGA1156 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3														
Memory	2GB or 3GB std , 4GB max, PC3-10600 1333MHz DDR3 , two 204-pin SODIMM sockets (notebook); <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		<ul style="list-style-type: none">• Business black color; metal case• 11.0" W X 9.4" D X 3.1" H• 279mm W X 238mm D X 79mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• System floor stand for vertical orientation														
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Individual USB port disablement														
DP dongle	None																
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm																
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical																
eSATA port	None		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant														
Diskette drive	None																
Media reader	None																
Chipset	Intel Q57 Express Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O																
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		Supports ThinkVantage® technologies														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																
Speaker	Internal speaker for business audio																
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																
Intel AMT	Intel Active Management Technology 6.0 (iAMT 6.0)		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378														
Modem	None																
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																
Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)		Accessories <table><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>Lenovo Vertical PC and Monitor Stand II</td><td>41R4474</td></tr><tr><td>ThinkCentre Ultra Small Under Desk Mount</td><td>40Y8625</td></tr></table> More accessories on O-M90 sheet		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																
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DisplayPort to VGA Monitor Cable	57Y4393																
Lenovo Vertical PC and Monitor Stand II	41R4474																
ThinkCentre Ultra Small Under Desk Mount	40Y8625																
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo System Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)• Corel WinDVD® (DVD±RW)		Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories															

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ⁸	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3853-A4U	1x2	Core i5-650	3.20	3.46	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
3853-B5U	1x2	Core i5-660	3.33	3.60	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
3853-E3U	1x2	Core i5-650	3.20	3.46	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
3853-E4U	1x2	Core i5-660	3.33	3.60	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
3853-E5U	1x2	Core i5-660	3.33	3.60	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10

- **Next generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **These models have a 3-year limited warranty¹**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 or i5-660 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		Eco Ultra Small <div><div>optical</div><div>disk</div><div>□ ○ □</div></div>		
Implementation					
Memory	2GB or 3GB std , 4GB max, PC3-10600 1333MHz DDR3 , two 204-pin SODIMM sockets (notebook); <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 11.0" W X 9.4" D X 3.1" H• 279mm W X 238mm D X 79mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• System floor stand for vertical orientation		
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB models], 1277MB [3GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display				
DP dongle	None				
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Individual USB port disablement		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical				
eSATA port	None				
Diskette drive	None				
Media reader	None				
Chipset	Intel Q57 Express Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)				
Audio	High Definition (HD) Audio, Realtek® ALC662 codec				
Speaker	Internal speaker for business audio				
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®				
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)				
Modem	None				
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Supports ThinkVantage® technologies		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo				
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU				
Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32		Accessories 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 Lenovo Vertical PC and Monitor Stand II 41R4474 ThinkCentre Ultra Small Under Desk Mount 40Y8625 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)				Limited Warranty ¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378	

See footnotes for important warranty information

US models announced January 15, 2010

⚡ US model withdrawn effective April 2010

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(MELB1-5) January 2010

ThinkCentre® M90p Eco Ultra Small (5296) - GMP (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ⁶	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global (G) GMP (P)	Avail date
5296-A1U	1x2	Core i5-650	3.20	3.46	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	G P	Feb 10

- **Next generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		Eco Ultra Small <div><div>optical</div><div>disk</div></div>																				
Implementation																							
Memory	2GB std, 4GB max, PC3-10600 1333MHz DDR3 , two 204-pin SODIMM sockets (notebook); <i>Non-italics:</i> standard memory in one socket; one socket available																						
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector; one DisplayPort™ connector, supports dual independent display																						
DP dongle	None																						
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm		<div>Security<ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Individual USB port disablement</div> <div>Environmental Features<ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant</div> <div>Supports ThinkVantage® technologies</div> <div>Limited Warranty¹<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div>																				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																						
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical																						
eSATA port	None																						
Diskette drive	None																						
Media reader	None																						
Chipset	Intel Q57 Express Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O																						
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																						
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																						
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																						
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																						
Speaker	Internal speaker for business audio																						
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																						
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)																						
Modem	None																						
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																						
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																						
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																						
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																						
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32		Accessories <table><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>Lenovo Vertical PC and Monitor Stand II</td><td>41R4474</td></tr><tr><td>ThinkCentre Ultra Small Under Desk Mount</td><td>40Y8625</td></tr><tr><td colspan="2">More accessories on O-M90 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625	More accessories on O-M90 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																						
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																						
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																						
DisplayPort to Single-link DVI-D Cable	45J7915																						
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More accessories on O-M90 sheet																							
Acc Guide in pdf lenovo.com/accessoriesguide																							
Other accessories at lenovo.com/accessories																							
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)																							

See footnotes for important warranty information
 US model announced January 15, 2010

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Personal Systems Reference (PSREF)

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0*
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty†

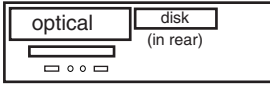
- 3-year parts and labor
- International Warranty Service⁹
- Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
- Onsite service upgrade options (in eligible locations):
 - 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)
 - 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)
 - 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)
 - 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)
 - 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)
- ThinkPlus services at lenovo.com/thinkplus/warranty
- Post warranty maintenance services available
- 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378

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Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ^a	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3269-A6U	2x3	Core i5-650	3.20	3.46	2	3GB	500GB ²	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Mar 10
3269-A8U	2x3	Core i5-650	3.20	3.46	2	4GB	320GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 64	None	Mar 10

- **Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		Small 
Implementation			
Memory	3GB or 4GB std , 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Italics: standard memory in two sockets; two sockets available</i>		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 1277MB[3GB models], 1759MB[4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display		<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless system board retention• System floor stand for vertical orientation
DP dongle	None		
SATA disk	320GB or 500GB , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction		Supports ThinkVantage® technologies
Preloaded operating system ²⁰		Accessories	Limited Warranty ¹
- <i>Some:</i> Genuine Windows® 7 Professional 32		1GB PC3-10600 DDR3 UDIMM 57Y4389	⇒ 3-year parts and labor
- <i>Some:</i> Genuine Windows 7 Professional 64		2GB PC3-10600 DDR3 UDIMM 57Y4390	⇒ International Warranty Service ⁹
Preloaded applications ⁵ (all OSes; only some listed)		500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990	⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
• Rescue and Recovery™		1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918	⇒ Onsite service upgrade options (in eligible locations): ⁷
• Password Manager		Super Multi-Burner DL DVD±RW SATA Drive 41N5620	• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9192)
• ThinkVantage System Update		DisplayPort to Single-link DVI-D Cable 45J7915	• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)
• ThinkVantage Power Manager		DisplayPort to VGA Monitor Cable 57Y4393	• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)
• ThinkVantage Toolbox		NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397	• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)
• Norton™ Internet Security 2009 (30 days of virus definitions)		NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396	• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)
• Adobe® Reader®		More accessories on O-M90 sheet	⇒ ThinkPlus services at lenovo.com/thinkplus/warranty
• Adobe Flash® Player		Acc Guide in pdf lenovo.com/accessoriesguide	⇒ Post warranty maintenance services available
• Skype™ for Windows		Other accessories at lenovo.com/accessories	⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
• Microsoft® Office 2007 Trial (60-day)			
• Corel® Burn.Now™ (DVD±RW)			
• Corel DVD MovieFactory® (DVD±RW)			

See footnotes for important warranty information
US models announced March 2, 2010

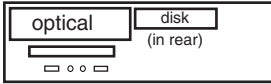
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(MELB1-28) March 2010

Personal Systems Reference (PSREF)

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0*
- These models have a 3-year limited warranty¹

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 or i5-660 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket
Implementation	
Memory	2GB or 3GB std. , 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later
DP dongle	None
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical
eSATA port	None
Diskette drive	None
Media reader	None
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)
Audio	High Definition (HD) Audio, Realtek® ALC662 codec
Speaker	Internal speaker for business audio
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)
Modem	None
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction

Small



Bay ① 5.25", 1.6" high, access, std optical
 Bay ② 3.5", 1" high, no access, std disk
 Bay ③ 3.5", .5" high, access, open (reader)

Slot 1: Low Profile, PCI Express 2.0 x16 (75w max)
 Slot 2: Low Profile, 32-bit PCI 2.3

- Business black color; metal case
- 12.5" W X 14.0" D X 3.9" H
- 317mm W X 355mm D X 99mm H
- 16.5 lb (7.5 kg) in maximum configuration
- Toolless cover flips up and tilts backward on rear hinges
- Toolless disk, optical drive removal
- Toolless adapter retention
- Toolless system board retention
- System floor stand for vertical orientation

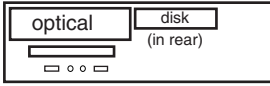
	Security
	<ul style="list-style-type: none"> • Security chip (see information on left) • Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) • Power-on password • Hard disk password • Boot sequence control • Boot without keyboard and mouse • Serial port I/O control • Individual USB port disablement
	Environmental Features
	<ul style="list-style-type: none"> • EPEAT™ Gold rating • ENERGY STAR® 5.0-compliant • GREENGUARD® certified • RoHS-compliant
	Supports ThinkVantage® technologies

See footnotes for important warranty information
US models announced January 15, 2010

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ^a	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
5536-A4U	2x3	Core i5-650	3.20	3.46	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5536-B8U	2x3	Core i5-650	3.20	3.46	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5536-B9U	2x3	Core i5-660	3.33	3.60	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5536-E2U	2x3	Core i5-660	3.33	3.60	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10

- **Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **These models have a 3-year limited warranty¹**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 or i5-660 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		Small  Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless system board retention• System floor stand for vertical orientation																								
Implementation																											
Memory	2GB or 3GB std , 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available																										
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB models], 1277MB [3GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display None																										
DP dongle	None																										
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant Supports ThinkVantage® technologies Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																								
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																										
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical																										
eSATA port	None																										
Diskette drive	None																										
Media reader	None																										
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O																										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																										
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																										
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																										
Speaker	Internal speaker for business audio																										
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																										
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)																										
Modem	None																										
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																										
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																										
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction																										
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			Accessories <table><tr><td>1GB PC3-10600 DDR3 UDIMM</td><td>57Y4389</td></tr><tr><td>2GB PC3-10600 DDR3 UDIMM</td><td>57Y4390</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</td><td></td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>NVIDIA® GeForce® 512MB 310 (DP, VGA)</td><td>57Y4397</td></tr><tr><td>NVIDIA Quadro® 512MB FX380 LP (DP, DVI)</td><td>57Y4396</td></tr><tr><td colspan="2">More accessories on O-M90 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>	1GB PC3-10600 DDR3 UDIMM	57Y4389	2GB PC3-10600 DDR3 UDIMM	57Y4390	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive 41N5620		DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397	NVIDIA Quadro® 512MB FX380 LP (DP, DVI)	57Y4396	More accessories on O-M90 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC3-10600 DDR3 UDIMM	57Y4389																										
2GB PC3-10600 DDR3 UDIMM	57Y4390																										
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																										
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																										
Super Multi-Burner DL DVD±RW SATA Drive 41N5620																											
DisplayPort to Single-link DVI-D Cable	45J7915																										
DisplayPort to VGA Monitor Cable	57Y4393																										
NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397																										
NVIDIA Quadro® 512MB FX380 LP (DP, DVI)	57Y4396																										
More accessories on O-M90 sheet																											
Acc Guide in pdf lenovo.com/accessoriesguide																											
Other accessories at lenovo.com/accessories																											
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)																											

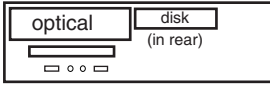
ThinkCentre® M90p Small (5864) - GMP (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ⁸	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global (G) GMP (P)	Avail date
5864-A1U	2x3	Core i5-650	3.20	3.46	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	G P	Feb 10

- **Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket			Small 
Implementation				
Memory	2GB std , 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Non-italics: standard memory in one socket; three sockets available</i>			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless system board retention• System floor stand for vertical orientation
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display			Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement
DP dongle	None			
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical			Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant Supports ThinkVantage® technologies
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O			Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	Internal speaker for business audio			
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®			
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)			
Modem	None			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo			
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction			
Preloaded operating system²⁰		Accessories		
- Genuine Windows® 7 Professional 32		1GB PC3-10600 DDR3 UDIMM	57Y4389	
Preloaded applications⁵ (only some listed)		2GB PC3-10600 DDR3 UDIMM	57Y4390	
• Rescue and Recovery™		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
• Password Manager		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• ThinkVantage System Update		Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
• ThinkVantage Power Manager		DisplayPort to Single-link DVI-D Cable	45J7915	
• ThinkVantage Toolbox		DisplayPort to VGA Monitor Cable	57Y4393	
• Norton™ Internet Security 2009 (30 days of virus definitions)		NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397	
• Adobe® Reader®		NVIDIA Quadro® 512MB FX380 LP (DP, DVI)	57Y4396	
• Adobe Flash® Player		More accessories on O-M90 sheet		
• Skype™ for Windows		Acc Guide in pdf lenovo.com/accessoriesguide		
• Microsoft® Office 2007 Trial (60-day)		Other accessories at lenovo.com/accessories		
• Corel® Burn.Now™ (DVD±RW)				
• Corel DVD MovieFactory® (DVD±RW)				

See footnotes for important warranty information
US model announced January 15, 2010

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(MELB1-11) January 2010

ThinkCentre® M90p Tower (3282) - TopSeller (XP with Win7 License)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
3282-A1U	4x4	Core i5-650	3.20	3.46	2	3GB	500GB ²	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
3282-A2U	4x4	Core i5-660	3.33	3.60	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0*
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 or i5-660 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.4" D X 16.3" H• 175mm W X 442mm D X 414mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Power button on top handle• Toolless cover removal• Tilted front I/O for easy access• Toolless disk, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>⏏ ⏏</div></div>
Implementation	Processor in LGA1156 socket		
Memory	3GB std , 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available		
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10*, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display * DirectX 10 is only available with Windows Vista and later		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk
DP dongle	None		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
SATA disk	500GB , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		
Preloaded operating system ²⁰		Accessories	Supports ThinkVantage® technologies
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo System Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)• Corel WinDVD® (DVD±RW)		- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)	1GB PC3-10600 DDR3 UDIMM 57Y4389
			2GB PC3-10600 DDR3 UDIMM 57Y4390
			500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990
			1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918
			Super Multi-Burner DL DVD±RW SATA Drive 41N5620
			DisplayPort to Single-link DVI-D Cable 45J7915
			DisplayPort to VGA Monitor Cable 57Y4393
			NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397
			More accessories on O-M90 sheet
			Acc Guide in pdf lenovo.com/accessoriesguide
	Other accessories at lenovo.com/accessories		

See footnotes for important warranty information
 US models announced January 15, 2010
 ⚠ US model withdrawn effective February 2010

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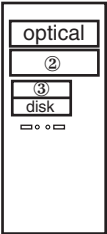
ThinkCentre® M90p Tower (3282) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3282-A8U	4x4	Core i5-650	3.20	3.46	2	3GB	500GB ²	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Mar 10
3282-B1U	4x4	Core i5-650	3.20	3.46	2	4GB	320GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 64	None	Mar 10

- **Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache	Tower <ul style="list-style-type: none"> • Business black color; metal case • 6.9" W X 17.4" D X 16.3" H • 175mm W X 442mm D X 414mm H • 24.2 lb (11.0 kg) in max configuration • Handle on top front • Power button on top handle • Toolless cover removal • Tilted front I/O for easy access • Toolless disk, optical drive removal • Toolless adapter retention 
Implementation	Processor in LGA1156 socket	
Memory	3GB or 4GB std. 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available	
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 1277MB/3GB models, 1759MB/4GB models), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display	
DP dongle	None	
SATA disk	320GB or 500GB , SATA 3.0Gb/s 7200 rpm	Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical	
eSATA port	None	
Diskette drive	None	
Media reader	None	
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O	Security <ul style="list-style-type: none"> • Security chip (see information on left) • One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> - Padlock loop (in rear for opt padlock) - Security slot (in rear for optional Kensington® MicroSaver® cable) • Power-on password • Hard disk password • Boot sequence control • Boot without keyboard and mouse • Serial port I/O control • Individual USB port disablement
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	Environmental Features <ul style="list-style-type: none"> • EPEAT™ Gold rating • ENERGY STAR® 5.0-compliant • GREENGUARD® certified • RoHS-compliant
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	Internal speaker for business audio	
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®	
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)	
Modem	None	
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo	
Power supply	280 watts with variable speed fan, autosensing, 85% PSU	
Preloaded operating system²⁰ <ul style="list-style-type: none"> - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications⁵ (all OSes; only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Corel® Burn.Now™ (DVD±RW) • Corel DVD MovieFactory® (DVD±RW) 		Accessories 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397 More accessories on O-M90 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories
		Limited Warranty¹ ⇒ 3-year parts and labor ⇒ International Warranty Service® ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ Onsite service upgrade options (in eligible locations):⁷ <ul style="list-style-type: none"> • 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192) • 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193) • 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194) • 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195) • 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196) ⇒ ThinkPlus services at lenovo.com/thinkplus/warranty ⇒ Post warranty maintenance services available ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378

See footnotes for important warranty information
US models announced March 2, 2010

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ThinkCentre® M90p Tower (5498) - XP with Win7 License

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ⁶	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Recovery DVD	Global Educ	Avail date
5498-A1U	4x4	Core i5-650	3.20	3.46	2	2GB	250GB ²	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10
5498-A2U	4x4	Core i5-650	3.20	3.46	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10
5498-A3U	4x4	Core i5-660	3.33	3.60	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10

- **Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **These models have a 3-year limited warranty¹**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 or i5-660 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.4" D X 16.3" H• 175mm W X 442mm D X 414mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Power button on top handle• Toolless cover removal• Tilted front I/O for easy access• Toolless disk, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>□ ○ □</div></div>		
Implementation	Processor in LGA1156 socket			Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		
Memory	2GB or 3GB std. 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available			Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length,full-height, PCIe 2.0 x1 Slot 3: half-length,full-height, 32-bit PCI 2.3 Slot 4: half-length,full-height, 32-bit PCI 2.3		
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later			<div>Security<ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement Environmental Features<ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant</div> <div>Supports ThinkVantage® technologies</div> <div>Limited Warranty¹<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div>		
DP dongle	None					
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm					
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive					
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical					
eSATA port	None					
Diskette drive	None					
Media reader	None					
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O					
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)					
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)					
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)					
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)					
Audio	High Definition (HD) Audio, Realtek® ALC662 codec					
Speaker	Internal speaker for business audio					
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®					
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)					
Modem	None					
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant					
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo					
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo					
Power supply	280 watts with variable speed fan, autosensing, 85% PSU					
Preloaded operating system²⁰						
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)						
Preloaded applications⁵ (only some listed)						
• Rescue and Recovery™						
• Client Security Solution™						
• ThinkVantage Productivity Center						
• ThinkVantage System Update						
• ThinkVantage Power Manager						
• Lenovo System Toolbox						
• Norton™ Internet Security 2009 (30 days of virus definitions)						
• Adobe® Reader®						
• Adobe Flash® Player						
• Skype™ for Windows						
• Microsoft® Office 2007 Trial (60-day)						
• Corel® Burn.Now™ (DVD±RW)						
• Corel DVD MovieFactory® (DVD±RW)						
• Corel WinDVD® (DVD±RW)						
Accessories						
1GB PC3-10600 DDR3 UDIMM		57Y4389				
2GB PC3-10600 DDR3 UDIMM		57Y4390				
500GB SATA 3.0Gb/s Disk (7200 rpm)		43R1990				
1TB SATA 3.0Gb/s Disk (7200 rpm)		45J7918				
Super Multi-Burner DL DVD±RW SATA Drive		41N5620				
DisplayPort to Single-link DVI-D Cable		45J7915				
DisplayPort to VGA Monitor Cable		57Y4393				
NVIDIA® GeForce® 512MB 310 (DP, VGA)		57Y4397				
More accessories on O-M90 sheet						
Acc Guide in pdf lenovo.com/accessoriesguide						
Other accessories at lenovo.com/accessories						

See footnotes for important warranty information
US models announced January 15, 2010

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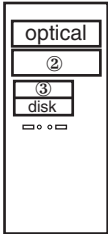
ThinkCentre® M90p Tower (5498) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0 vPro	Win7 preload	Global Educ	Avail date
5498-A4U	4x4	Core i5-650	3.20	3.46	2	2GB	250GB ²	None	DVD±RW	Intel HD	VGA, DP	ES50 vPro	Pro 32	None	Feb 10
5498-B5U	4x4	Core i5-660	3.33	3.60	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50 vPro	Pro 32	None	Feb 10
5498-E7U	4x4	Core i5-650	3.20	3.46	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50 vPro	Pro 32	None	Feb 10
5498-E8U	4x4	Core i5-660	3.33	3.60	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50 vPro	Pro 32	None	Feb 10
5498-E9U	4x4	Core i5-660	3.33	3.60	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50 vPro	Pro 32	None	Feb 10

- **Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0***
- **These models have a 3-year limited warranty¹**

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning	<i>Ultimate security, stability, and manageability for the enterprise</i> Intel® Core™ i5 Processor i5-650 or i5-660 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache	Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.4" D X 16.3" H• 175mm W X 442mm D X 414mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Power button on top handle• Toolless cover removal• Tilted front I/O for easy access• Toolless disk, optical drive removal• Toolless adapter retention	
Implementation			
Memory	2GB or 3GB std. 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available		
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [<i>2GB models</i>], 1277MB [<i>3GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display	Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk	
DP dongle	None	Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3	
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32		Accessories 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397 More accessories on O-M90 sheet	
Preloaded applications⁵ (only some listed) • Rescue and Recovery™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Corel® Burn.Now™ (DVD±RW) • Corel DVD MovieFactory® (DVD±RW)		Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	

Security

- Security chip (see information on left)
- One lock to secure both cover and entire system to fixed object:
 - Padlock loop (in rear for opt padlock)
 - Security slot (in rear for optional Kensington® MicroSaver® cable)
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Serial port I/O control
- Individual USB port disablement

Environmental Features

- EPEAT™ Gold rating
- ENERGY STAR® 5.0-compliant
- GREENGUARD® certified
- RoHS-compliant

Supports ThinkVantage® technologies

Limited Warranty¹

- ⇒ **3-year parts and labor**
- ⇒ **International Warranty Service⁹**
- ⇒ **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)**
- ⇒ **Onsite service upgrade options (in eligible locations):⁷**
 - **3-year LOR 9x5, 4 hour response** (ThinkPlus™ part number 41C9192)
 - **3-year LOR 24x7, 4 hour response** (ThinkPlus part number 41C9193)
 - **4-year LOR 9x5, Next Business Day** (ThinkPlus part number 41C9194)
 - **4-year LOR 9x5, 4 hour response** (ThinkPlus part number 41C9195)
 - **4-year LOR 24x7, 4 hour response** (ThinkPlus part number 41C9196)
- ⇒ **ThinkPlus services at lenovo.com/thinkplus/warranty**
- ⇒ **Post warranty maintenance services available**
- ⇒ **24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378**

See footnotes for important warranty information

US models announced January 15, 2010

≡ US model withdrawn effective April 2010

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(MELB1-1) January 2010

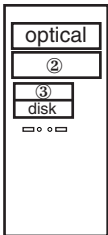
ThinkCentre® M90p Tower (5852) - GMP (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Turbo Memory [®]	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global (G) GMP (P)	Avail date
5852-A1U	4x4	Core i5-650	3.20	3.46	2	2GB	250GB ²	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	G P	Feb 10

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0²
- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty

* For more information on Lenovo Secure Managed Client, see lenovo.com/acc

Positioning Processor	Ultimate security, stability, and manageability for the enterprise Intel® Core™ i5 Processor i5-650 with dual-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		
Implementation			
Memory	2GB std , 8GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; three sockets available		
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display None		
DP dongle	None		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical		
eSATA port	None		Security <ul style="list-style-type: none"> • Security chip (see information on left) • One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> - Padlock loop (in rear for opt padlock) - Security slot (in rear for optional Kensington® MicroSaver® cable) • Power-on password • Hard disk password • Boot sequence control • Boot without keyboard and mouse • Serial port I/O control • Individual USB port disablement
Diskette drive	None		
Media reader	None		
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		Environmental Features <ul style="list-style-type: none"> • EPEAT™ Gold rating • ENERGY STAR® 5.0-compliant • GREENGUARD® certified • RoHS-compliant
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		Supports ThinkVantage® technologies
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)		
Modem	None		Limited Warranty¹ <ul style="list-style-type: none"> ⇒ 3-year parts and labor ⇒ International Warranty Service⁹ ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ Onsite service upgrade options (in eligible locations):⁷ <ul style="list-style-type: none"> • 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194) • 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195) • 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196) ⇒ ThinkPlus services at lenovo.com/thinkplus/warranty ⇒ Post warranty maintenance services available ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		
Preloaded operating system ²⁰		Accessories	
- Genuine Windows® 7 Professional 32		1GB PC3-10600 DDR3 UDIMM	57Y4389
Preloaded applications ⁵ (only some listed)		2GB PC3-10600 DDR3 UDIMM	57Y4390
• Rescue and Recovery™		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
• Password Manager		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
• ThinkVantage System Update		Super Multi-Burner DL DVD±RW SATA Drive	41N5620
• ThinkVantage Power Manager		DisplayPort to Single-link DVI-D Cable	45J7915
• ThinkVantage Toolbox		DisplayPort to VGA Monitor Cable	57Y4393
• Norton™ Internet Security 2009 (30 days of virus definitions)		NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397
• Adobe® Reader®		More accessories on O-M90 sheet	
• Adobe Flash® Player		Acc Guide in pdf lenovo.com/accessoriesguide	
• Skype™ for Windows		Other accessories at lenovo.com/accessories	
• Microsoft® Office 2007 Trial (60-day)			
• Corel® Burn.Now™ (DVD±RW)			
• Corel DVD MovieFactory® (DVD±RW)			

See footnotes for important warranty information
US model announced January 15, 2010

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(MELB1-20) January 2010

Partial list of accessories supported on ThinkCentre M90 and M90p**Memory***Eco Ultra Small 3244/3692/3257/3853/5296 use notebook memory:*

1GB PC3-10600 DDR3 L-H SODIMM	55Y3709	ann 03/02/10
1GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4415	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10

*Small 3245/5485/3269/5536/5864, and**Tower 3246/5474/3282/5498/5852 use desktop memory:*

1GB PC3-10600 DDR3 Low-Halogen UDIMM	57Y4389	ann 01/12/10
1GB PC3-10600 DDR3 L-H UDIMM (25-Pack)	57Y4419	ann 01/12/10
2GB PC3-10600 DDR3 Low-Halogen UDIMM	57Y4390	ann 01/12/10
2GB PC3-10600 DDR3 L-H UDIMM (25-Pack)	57Y4420	ann 01/12/10

Optical

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Storage and removable storage

250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08
150GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2030	ann 03/31/09

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

⁵³ USB-only attach.**Graphics***Small 3245/5485/3269/5536/5864 support Low Profile:*

NVIDIA® Quadro® 512MB FX 380 LP (DP, DVI)	57Y4396	ann 02/02/10
NVIDIA GeForce® 512MB 310 (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

Tower 3246/5474/3282/5498/5852 support 75 watts max:

NVIDIA Quadro 256MB NVS 295	45K1669	ann 04/21/09
NVIDIA Quadro 512MB NVS 450 (4-DP, 4-DVI)	57Y4398	ann 01/19/10
NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

More information at www.lenovo.com/support/graphiccards**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
UltraSlim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
ThinkPad® USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.More information at www.lenovo.com/support/keyboards**Mouse**

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse(USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08

More information at www.lenovo.com/support/mice**Multimedia**

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

⁵⁶ Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.**Mounting Device***Eco Ultra Small 3244/3692/3257/3853/5296 support under desk mounting device:*

ThinkCentre Ultra Small Under Desk Mount	40Y8625	ann 09/06/05
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Monitors

Lenovo D186 Wide 18.5" Monitor	2580AB1	ann 01/12/10
Lenovo L2461x Wide 23.6" Monitor	4015HB1	ann 01/05/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

More information at www.lenovo.com/thinkvision**Monitor Accessories⁴⁶***Eco Ultra Small 3244/3692/3257/3853/5296 support:*

Lenovo Vertical PC and Monitor Stand II	41R4474	ann 01/27/09
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All:

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
DisplayPort™ to Single-link DVI-D Cable	45J7915	ann 08/05/08
DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/desktopaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkCentre A58e Tower



Lenovo ThinkCentre A58e Tower with
Lenovo ThinkVision monitor



Lenovo ThinkCentre A58e Tower



Lenovo ThinkCentre A58e Tower



Lenovo ThinkCentre A58e Tower



Lenovo ThinkCentre A58e Tower

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Integrated graphics	Win7 preload	Global Educ	Avail date
A58e	0841-A4U	4x2	Celeron E3200	2.40	1MB	2	1GB	250GB ²	DVD	GMA 3100	Pro 32	None	Jan 10
A58e	0841-A5U	4x2	Pentium E5300	2.60	2MB	2	2GB	250GB	DVD±RW	GMA 3100	Pro 32	None	Jan 10
A58e	0841-A6U	4x2	Pentium E5300	2.60	2MB	2	3GB	320GB	DVD±RW	GMA 3100	Pro 32	None	Jan 10
A58e	0841-ADU	4x2	Pentium E5400	2.70	2MB	2	2GB	250GB	DVD±RW	GMA 3100	Pro 32	None	Jan 10
A58e	0841-AEU	4x2	Pentium E5400	2.70	2MB	2	3GB	320GB	DVD±RW	GMA 3100	Pro 32	None	Jan 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **Affordable and reliable computing for everyday business tasks**
- **These models have a 1-year limited warranty¹**

Positioning Processor	Quality and reliability for small/medium business Intel® Celeron® Processor E3200 with dual-core , 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E5300 or E5400 with dual-core , 800MHz system bus, and 2MB L2 cache Processor in LGA775 socket			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 16.7" D X 14.6" H• 175mm W X 425mm D X 371mm H• 19.6 lb (8.9 kg) in typical configuration• Handle on top front• Power button on top handle <div><div>optical</div><div>disk</div></div>																
Implementation																				
Memory	1GB, 2GB, or 3GB std. , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-Italics:</i> standard memory in one socket; one socket available			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk																
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory, one analog VGA DB-15 connector			Slot 1: half-length,full-height, PCI Express x16 Slot 2: half-length,full-height, PCI Express x1 Slot 3: half-length,full-height, 32-bit PCI 2.3 Slot 4: half-length,full-height, 32-bit PCI 2.3																
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm			Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Boot sequence control• Boot without keyboard, mouse																
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																			
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors																			
eSATA port	None																			
Diskette drive	None																			
Media reader	None																			
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7)																			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																			
Rear ports	Four USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15)																			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																			
Speaker	None																			
IEEE 1394	None																			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057																			
Intel AMT	None																			
Modem	None																			
Security chip	None																			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			RoHS-compliant																
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																			
Power supply	180 watts, universal, manual switch																			
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32 Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• ThinkVantage® Product Recovery• ThinkVantage System Update• ThinkVantage Power Manager• Norton™ Internet Security 2009 (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)				Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>Lenovo USB-to-DVI Monitor Adapter</td><td>45K5296</td></tr><tr><td>DisplayPort™ to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr></table> More accessories on O-A58E sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	Lenovo USB-to-DVI Monitor Adapter	45K5296	DisplayPort™ to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636
1GB PC2-6400 DDR2 UDIMM	41U2977																			
2GB PC2-6400 DDR2 UDIMM	41U2978																			
Lenovo USB-to-DVI Monitor Adapter	45K5296																			
DisplayPort™ to Single-link DVI-D Cable	45J7915																			
DisplayPort to VGA Monitor Cable	57Y4393																			
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																			
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																			
				Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5951)• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5949)• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5952)• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5950)• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5953)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																

Partial list of accessories supported on ThinkCentre A58e Tower

Memory

1GB PC2-6400 DDR2 UDIMM	41U2977	ann 09/26/06
1GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0549	ann 03/17/09
2GB PC2-6400 DDR2 UDIMM	41U2978	ann 01/08/08
2GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0550	ann 03/17/09

Optical

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Graphics

DisplayPort™ to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08
DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

⁵⁰ Attaches to the ThinkCentre compatible DisplayPort graphics card.

More information at www.lenovo.com/support/graphiccards

Keyboard

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at www.lenovo.com/support/keyboards

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08

More information at www.lenovo.com/support/mice

Multimedia

ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

⁵⁶ Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

More information at www.lenovo.com/thinkvision

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/desktopaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkCentre A58 Small and
Lenovo ThinkCentre A58 Tower



Lenovo ThinkCentre A58 Small with
Lenovo ThinkVision monitor



Lenovo ThinkCentre A58 Small



Lenovo ThinkCentre A58 Small
with dual Lenovo ThinkVision monitors



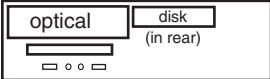
Lenovo ThinkCentre A58 Tower



Lenovo ThinkCentre A58 Tower

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Preload	Global Educ	Avail date
A58	7522-M8U	2x3	Celeron E3200	2.40	1MB	2	1GB	250GB ²	DVD±RW	GMA	XP Pro	None	Nov 09
A58	7522-K6U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro	None	Nov 09
A58	7522-K7U	2x3	Pentium E6300	2.80	2MB	2	3GB	320GB	DVD±RW	GMA	XP Pro	None	Nov 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹

Positioning Processor	Quality, reliability, and security for small/medium businesses Intel® Celeron® Processor E3200 with dual-core, Virtualization Technology, 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E6300 with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache			Small																					
Implementation	Processor in LGA775 socket			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)																					
Memory	1GB, 2GB, or 3GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available			Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3																					
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB or 3GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation																					
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening			Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																								
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																								
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																								
eSATA port	None																								
Diskette drive	None			Supports ThinkVantage® technologies																					
Media reader	None																								
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																								
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																								
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																								
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			GREENGUARD® certified RoHS-compliant																					
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																								
Speaker	One internal speaker for business audio																								
IEEE 1394	None																								
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																								
Intel AMT	None			Limited Warranty¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ International Warranty Service®⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5951)• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5949)• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5952)• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5950)• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5953)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																					
Modem	None																								
Security chip	None																								
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																								
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																								
Power supply	280 watts with variable speed fan, autosensing																								
Preloaded operating system²⁰ <ul style="list-style-type: none">- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional		Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>41N3015</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® Quadro® 256MB FX 370 LP</td><td>55Y9275</td></tr></table> More accessories on O-A58 sheet		1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275		
1GB PC2-6400 DDR2 UDIMM	41U2977																								
2GB PC2-6400 DDR2 UDIMM	41U2978																								
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																								
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																								
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																								
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ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																								
NVIDIA® Quadro® 256MB FX 370 LP	55Y9275																								
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• Lenovo Care™• ThinkVantage System Update• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Small Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)		Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories																							

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
A58	7522-M9U	2x3	Celeron E3200	2.40	1MB	2	1GB	250GB ²	DVD±RW	GMA	Pro 32	None	Nov 09
A58	7522-P1U	2x3	Pentium E5300	2.60	2MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Nov 09
A58	7522-P2U	2x3	Pentium E5300	2.60	2MB	2	3GB	320GB	DVD±RW	GMA	Pro 32	None	Nov 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹

Positioning Processor	Quality, reliability, and security for small/medium businesses Intel® Celeron® Processor E3200 with dual-core, Virtualization Tehnology, 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E5300 with dual-core, 800MHz system bus, and 2MB L2 cache Processor in LGA775 socket			Small <div><div>optical</div><div>disk (in rear)</div></div>	
Implementation				Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)	
Memory	1GB, 2GB, or 3GB std , 4GB max ^a , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available			Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation	
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 253MB [1GB models], 765MB [2GB models], or 1277MB [3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement	
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar				
eSATA port	None				
Diskette drive	None				
Media reader	None				
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)				
Audio	High Definition (HD) Audio, Realtek® ALC662 codec				
Speaker	One internal speaker for business audio				
IEEE 1394	None				
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®				
Intel AMT	None				
Modem	None				
Security chip	None				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo				
Power supply	280 watts with variable speed fan, autosensing			Supports ThinkVantage® technologies	
				GREENGUARD® certified RoHS-compliant	
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				Limited Warranty¹ ⇒ 1-year parts and labor ⇒ International Warranty Service⁹ ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ Onsite service upgrade options (in eligible locations):⁷ <ul style="list-style-type: none">• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5951)• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5949)• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5952)• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5950)• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5953) ⇒ ThinkPlus services at lenovo.com/thinkplus/warranty ⇒ Post warranty maintenance services available ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378	
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Small Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)				Accessories 1GB PC2-6400 DDR2 UDIMM 41U2977 2GB PC2-6400 DDR2 UDIMM 41U2978 250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB FX 370 LP 55Y9275 More accessories on O-A58 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	

Partial list of accessories supported on ThinkCentre A58

Memory

1GB PC2-6400 DDR2 UDIMM	41U2977	ann 09/26/06
1GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0549	ann 03/17/09
2GB PC2-6400 DDR2 UDIMM	41U2978	ann 01/08/08
2GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0550	ann 03/17/09

Optical

All:

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Tower 7515/7611 supports:

Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ann 03/31/09
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Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Graphics

Small 7522/7705 support Low Profile 35 watts max:

DisplayPort™ to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® Quadro® 256MB FX 370 Low-Profile	55Y9275	ann 07/28/09
NVIDIA GeForce® 310 DMS59(2-DVI, 2-VGA)	57Y4167	ann 03/02/10

Tower 7515/7611 supports 75 watts max:

DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA GeForce 9500GT 512MB (DP, DVI)	45K1635	ann 11/18/08
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

⁵⁰ Attaches to the ThinkCentre compatible DisplayPort graphics card.More information at www.lenovo.com/support/graphiccards**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Preferred Pro Full Size PS/2 Keyboard	31P7415	ann 06/04/02
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.More information at www.lenovo.com/support/keyboards**Mouse**

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08

More information at www.lenovo.com/support/mice**Multimedia**

ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

⁵⁶ Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.**Monitors**

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

More information at www.lenovo.com/thinkvision**Monitor Accessories⁴⁶**

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/desktopaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkCentre A63 Tower



Lenovo ThinkCentre A63 Tower



Lenovo ThinkCentre A63 Tower



Lenovo ThinkCentre A63 Tower with
Lenovo ThinkVision® monitor



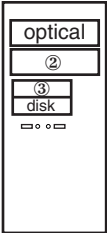
Lenovo ThinkCentre A63 Tower



Lenovo ThinkCentre A63 Tower

Type-model	Slot x bay	AMD processor	GHz	Core	Memory ⁶	SATA disk	2nd Disk Bay	SATA optical	Media reader	Integrated graphics	Monitor connectors	Int speaker	Win7 preload	Global Educ	Avail date
4013-A7U	4x4	Sempron 140	2.7	Single	1GB	250GB ²	None	DVD	None	3000	VGA, DVI-D	Int	Prem 32	None	Feb 10
4013-B2U	4x4	Athlon II X2 240	2.8	Dual	1GB	250GB	None	DVD±RW	None	3000	VGA, DVI-D	Int	Pro 32	None	May 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹

Positioning Processor	Optimized for small and medium businesses AMD® Sempron™ Processor 140 with single-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 1MB L2 cache or AMD Athlon™ II X2 Processor 240 with dual-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) Processor in Socket AM3		Tower <ul style="list-style-type: none">• Business black color• 6.9" W X 17.4" D X 16.2" H• 175mm W X 442mm D X 412mm H• 24.2lb (11.0kg) in typical configuration• Handle on top front• Power button on top handle• Tilted front I/O for easy access• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention																		
Implementation																					
Memory	1GB std , 4GB max, UDIMM, PC3-8500 1066MHz DDR3 , two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available				Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader) Bay ④ 3.5", 1" high, no access, std disk																
Graphics	ATI™ Radeon™ 3000 , integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter				Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length,full-height, PCIe 2.0 x1 Slot 3: half-length,full-height, PCIe 2.0 x1 Slot 4: half-length,full-height, 32-bit PCI 2.3																
SATA disk(s)	250GB , SATA 3.0Gb/s 7200 rpm				Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement																
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive																				
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																				
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors																				
eSATA port	None																				
Diskette drive	None																				
Media reader	None																				
Chipset	AMD 760G Chipset with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O																				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																				
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)																				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																				
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																				
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																				
Speaker	Internal speaker for business audio																				
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																				
Modem	None																				
Security chip	None																				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																				
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo																				
Power supply	280 watts with variable speed fan, manual switch																				
Preloaded operating system²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® 7 Home Premium 32- <i>Some:</i> Genuine Windows 7 Professional 32 Preloaded applications⁵ (all OSes; only some listed) <ul style="list-style-type: none">• ThinkVantage Product Recovery• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)			Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ATI Radeon HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 310 512MB (DP, VGA)</td><td>57Y4397</td></tr></table> More accessories on O-A63 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397
1GB PC3-8500 DDR3 UDIMM	45J5434																				
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ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																				
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397																				

See footnotes for important warranty information

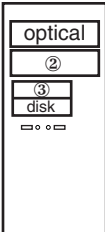
US model announced May 4, 2010; previous model on January 12, 2010

US model withdrawn effective May 2010

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(ALGS1-1) May 2010

Type-model	Slot x bay	AMD processor	GHz	Core	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Media reader	Integrated graphics	Monitor connectors	Int speaker	Win7 preload	Global Educ	Avail date
5043-AEU	4x4	Sempron 140	2.7	Single	2GB	250GB ²	None	DVD±RW	None	3000	VGA, DVI-D	Int	Pro 32	None	Feb 10
5043-AFU	4x4	Athlon II X2 240	2.8	Dual	2GB	250GB	None	DVD±RW	None	3000	VGA, DVI-D	Int	Pro 32	None	Feb 10
5043-AGU	4x4	Athlon II X3 435	2.9	Triple	3GB	320GB	None	DVD±RW	None	3000	VGA, DVI-D	Int	Pro 32	None	Feb 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

Positioning Processor	<i>Optimized for small and medium businesses</i> AMD® Sempron™ Processor 140 with single-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 1MB L2 cache or AMD Athlon™ II X2 Processor 240 with dual-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) or AMD Athlon II X3 Processor 435 with triple-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 1.5MB L2 cache (512KB per core) Processor in Socket AM3	Tower <ul style="list-style-type: none">• Business black color• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2lb (11.0kg) in typical configuration• Handle on top front• Power button on top handle• Tilted front I/O for easy access• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader) Bay ④ 3.5", 1" high, no access, std disk	
Implementation			
Memory	2GB or 3GB std , 4GB max, UDIMM, PC3-10600 1333MHz DDR3 , two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available	Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length,full-height, PCIe 2.0 x1 Slot 3: half-length,full-height, PCIe 2.0 x1 Slot 4: half-length,full-height, 32-bit PCI 2.3	
Graphics	ATI™ Radeon™ 3000 , integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter	Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Parallel port I/O control• Individual USB port disablement	
SATA disk(s)	250GB or 320GB , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	AMD 760G Chipset with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)	Supports ThinkVantage technologies	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	GREENGUARD® certified RoHS-compliant	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, manual switch		
Preloaded operating system ²⁰	Accessories		
- Genuine Windows® 7 Professional 32	1GB PC3-10600 DDR3 UDIMM	57Y4389	
Preloaded applications ⁵ (only some listed)	2GB PC3-10600 DDR3 UDIMM	57Y4390	
• ThinkVantage Product Recovery	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
• Password Manager	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• ThinkVantage System Update	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
• ThinkVantage Power Manager	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	
• ThinkVantage Toolbox	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397	
• Norton™ Internet Security 2009 (30 days of virus definitions)	More accessories on O-A63 sheet		
• Adobe® Reader®	Acc Guide in pdf lenovo.com/accessoriesguide		
• Adobe Flash® Player	Other accessories at lenovo.com/accessories		
• Skype™ for Windows			
• Microsoft® Office 2007 Trial (60-day)			
Limited Warranty ¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5955)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5957)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378			

See footnotes for important warranty information

US models announced January 12, 2010

5043-AEU model withdrawn effective May 2010

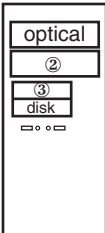
Type-model	Slot x bay	AMD processor	GHz	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Media reader	Integrated graphics	Monitor connectors	Int speaker	Win7 preload	Global Educ	Avail date
5237-AAU	4x4	Athlon II X2 240	2.8	Dual	2GB	250GB ²	No	DVD±RW	None	3000	VGA, DVI-D	Int	Pro 32	No	Feb 10

- **This model has a 1-year limited warranty¹**

Positioning Processor	Optimized for small and medium businesses AMD® Athlon™ II X2 Processor 240 with dual-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) Processor in Socket AM3		Tower <ul style="list-style-type: none">• Business black color• 6.9" W X 17.4" D X 16.2" H• 175mm W X 442mm D X 412mm H• 24.2lb (11.0kg) in typical configuration• Handle on top front• Power button on top handle• Tilted front I/O for easy access• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention		<div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>□ □ □ □</div></div>																				
Implementation																									
Memory	2GB std , 4GB max, UDIMM, PC3-10600 1333MHz DDR3 , two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available																								
Graphics	ATI™ Radeon™ 3000 , integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter																								
SATA disk(s)	250GB , SATA 3.0Gb/s 7200 rpm																								
SATA DVD	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																								
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors																								
eSATA port	None																								
Diskette drive	None																								
Media reader	None																								
Chipset	AMD 760G Chipset with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O				Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Individual USB port disablement																				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																								
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)																								
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																								
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																								
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																								
Speaker	Internal speaker for business audio																								
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																								
Modem	None																								
Security chip	None																								
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																								
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo																								
Power supply	280 watts with variable speed fan, manual switch																								
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 32			Accessories <table><tr><td>1GB PC3-10600 DDR3 UDIMM</td><td>57Y4389</td></tr><tr><td>2GB PC3-10600 DDR3 UDIMM</td><td>57Y4390</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ATI Radeon HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 310 512MB (DP, VGA)</td><td>57Y4397</td></tr><tr><td colspan="2">More accessories on O-A63 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>			1GB PC3-10600 DDR3 UDIMM	57Y4389	2GB PC3-10600 DDR3 UDIMM	57Y4390	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397	More accessories on O-A63 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC3-10600 DDR3 UDIMM	57Y4389																								
2GB PC3-10600 DDR3 UDIMM	57Y4390																								
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																								
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Super Multi-Burner DL DVD±RW SATA Drive	41N5620																								
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																								
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397																								
More accessories on O-A63 sheet																									
Acc Guide in pdf lenovo.com/accessoriesguide																									
Other accessories at lenovo.com/accessories																									
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• ThinkVantage Product Recovery• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)			Supports ThinkVantage® technologies																						
			GREENGUARD® certified RoHS-compliant																						
			Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5951)• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5949)• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5952)• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5950)• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5953)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																						

Type-model	Slot x bay	AMD processor	GHz	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor connectors	Int speaker	Chassis intr switch	Recovery DVD	Global Educ	Avail date
6674-A4U	4x4	Athlon II X3 435	2.9	Triple	2GB	320GB ²	No	DVD±RW	3000	VGA, DVI-D			XP Pro	Pro 32	None Feb 10
6674-A6U	4x4	Athlon II X2 240	2.8	Dual	1GB	250GB	No	DVD	3000	VGA, DVI-D			XP Pro	Pro 32	None Feb 10
6674-A8U	4x4	Athlon II X2 245	2.9	Dual	2GB	320GB	No	DVD±RW	3000	VGA, DVI-D	Int	Switch	XP Pro	Pro 32	None Feb 10
6674-AFU	4x4	Athlon II X2 245	2.9	Dual	2GB	320GB	No	DVD±RW	3000	VGA, DVI-D	Int		XP Pro	Pro 32	None Feb 10

- These models have a 3-year limited warranty¹

Positioning Processor	Optimized for small and medium businesses AMD® Athlon™ II X2 Processor 240 or 245 with dual-core , 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) or AMD Athlon II X3 Processor 435 with triple-core , 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 1.5MB L2 cache (512KB per core) Processor in Socket AM3		Tower <ul style="list-style-type: none">• Business black color• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2lb (11.0kg) in typical configuration• Handle on top front• Power button on top handle• Tilted front I/O for easy access• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention		
Implementation					
Memory	1GB or 2GB std. , 4GB max, UDIMM , two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available; <i>A4U:</i> PC3-10600 1333MHz DDR3 ; <i>A6U/A8U/AFU:</i> PC3-8500 1066MHz DDR3		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, opt reader Bay ④ 3.5", 1" high, no access, std disk		
Graphics	ATI™ Radeon™ 3000 , integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter		Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length,full-height, PCIe 2.0 x1 Slot 3: half-length,full-height, PCIe 2.0 x1 Slot 4: half-length,full-height, 32-bit PCI 2.3		
SATA disk(s)	250GB or 320GB , SATA 3.0Gb/s 7200 rpm		Security		
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive		<ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		<ul style="list-style-type: none">• Power-on password		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors		<ul style="list-style-type: none">• Boot sequence control		
eSATA port	None		<ul style="list-style-type: none">• Boot without keyboard and mouse		
Diskette drive	None		<ul style="list-style-type: none">• Serial port I/O control		
Media reader	None		<ul style="list-style-type: none">• Individual USB port disablement• <i>Some:</i> Chassis intrusion switch		
Chipset	AMD 760G Chipset with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O		Supports ThinkVantage technologies		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		GREENGUARD® certified		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)		RoHS-compliant		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		Limited Warranty¹		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		<ul style="list-style-type: none">⇒ 3-year parts and labor		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		<ul style="list-style-type: none">⇒ International Warranty Service⁹		
Speaker	<i>Some:</i> Internal speaker for business audio		<ul style="list-style-type: none">⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		<ul style="list-style-type: none">⇒ Onsite service upgrade options (in eligible locations):⁷		
Modem	None		<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5955)		
Security chip	None		<ul style="list-style-type: none">• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5957)		
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo		<ul style="list-style-type: none">• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)		
Power supply	280 watts with variable speed fan, manual switch		<ul style="list-style-type: none">• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)		
Preloaded operating system²⁰		Accessories			
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)		1GB PC3-8500 DDR3 UDIMM		45J5434	
		2GB PC3-8500 DDR3 UDIMM		45J5435	
		1GB PC3-10600 DDR3 UDIMM		57Y4389	
		2GB PC3-10600 DDR3 UDIMM		57Y4390	
Preloaded applications⁵ (only some listed)		500GB SATA 3.0Gb/s Disk (7200 rpm)		43R1990	
		1TB SATA 3.0Gb/s Disk (7200 rpm)		45J7918	
• ThinkVantage Product Recovery		DVD-ROM DL SATA 1.5Gb/s 16X-48X Max		41N5618	
		Super Multi-Burner DL DVD±RW SATA Drive		41N5620	
• Client Security Solution™		ATI Radeon HD 3470 256MB (DP, VGA)		45K1636	
		NVIDIA® GeForce® 310 512MB (DP, VGA)		57Y4397	
• ThinkVantage Productivity Center		More accessories on O-A63 sheet			
• ThinkVantage System Update		Acc Guide in pdf lenovo.com/accessoriesguide			
		Other accessories at lenovo.com/accessories			
• ThinkVantage Power Manager					
• Lenovo System Toolbox					
• Norton™ Internet Security 2009 (30 days of virus definitions)					
• Adobe® Reader®					
• Adobe Flash® Player					
• Skype™ for Windows					
• Microsoft® Office 2007 Trial (60-day)					
• Roxio® Creator® Business Edition (DVD±RW)					
• Roxio MyDVD® (DVD±RW)					
• Corel® WinDVD® (DVD, DVD±RW)					

See footnotes for important warranty information
US models announced January 12, 2010

ThinkCentre® A63 Tower (6674) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Slot x bay	AMD processor	GHz	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Media reader	Integrated graphics	Monitor connectors	Int speaker	Chassis intr switch	Win7 Preload	Global Educ	Avail date
6674-ABU	4x4	Phenom II X4 B93	2.8	3GB	500GB ²	No	DVD±RW	Media	3000	VGA, DVI-D	Int	Switch	Pro 32	None	Feb 10
6674-ANU	4x4	Athlon II X2 240	2.8	2GB	250GB	No	DVD±RW		3000	VGA, DVI-D	Int		Pro 32	None	Feb 10
6674-APU	4x4	Athlon II X3 435	2.9	2GB	250GB	No	DVD±RW		3000	VGA, DVI-D	Int		Pro 32	None	Feb 10
6674-ARU	4x4	Sempron 140	2.7	2GB	250GB	No	DVD±RW		3000	VGA, DVI-D	Int		Pro 32	None	Feb 10
6674-ASU	4x4	Athlon II X2 245	2.9	2GB	250GB	No	DVD±RW		3000	VGA, DVI-D	Int		Pro 32	None	Feb 10

• These models have a 3-year limited warranty¹

Positioning Processor	<p><i>Optimized for small and medium businesses</i></p> <p>AMD® Sempron™ Processor 140 with single-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 1MB L2 cache or</p> <p>AMD® Athlon™ II X2 Processor 240 or 245 with dual-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) or</p> <p>AMD Athlon II X3 Processor 435 with triple-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 1.5MB L2 cache (512KB per core) or</p> <p>AMD Phenom™ II X4 Processor B93 with quad-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, 2MB L2 cache (512KB per core), and 6MB shared L3 cache</p> <p>Processor in Socket AM3</p>	<p>Tower</p> <ul style="list-style-type: none">• Business black color• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2lb (11.0kg) in typical configuration• Handle on top front• Power button on top handle• Tilted front I/O for easy access• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <p>Bay ① 5.25", 1.6" high, access, std optical</p> <p>Bay ② 5.25", 1.6" high, access, open</p> <p>Bay ③ 3.5", 1" high, access, opt reader</p> <p>Bay ④ 3.5", 1" high, no access, std disk</p> <p>Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max)</p> <p>Slot 2: half-length,full-height, PCIe 2.0 x1</p> <p>Slot 3: half-length,full-height, PCIe 2.0 x1</p> <p>Slot 4: half-length,full-height, 32-bit PCI 2.3</p>	<div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>⋮</div></div>																								
Implementation																											
Memory	<p>2GB or 3GB std, 4GB max, UDIMM, two 240-pin DIMM sockets;</p> <p><i>Italics:</i> standard memory in both sockets; no sockets available;</p> <p><i>Non-italics:</i> standard memory in 1 socket; 1 socket available;</p> <p>ABU/APU/ARU/ASU: PC3-10600 1333MHz DDR3;</p> <p>ANU: PC3-8500 1066MHz DDR3</p>		<p>Security</p> <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® MicroSaver® cable)• Power-on password• Boot sequence control• Boot without keyboard and mouse• Serial port I/O control• Parallel port I/O control• Individual USB port disablement• <i>Some:</i> Chassis intrusion switch																								
Graphics	<p>ATI™ Radeon™ 3000, integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head</p> <p>ATI Radeon discrete graphics adapter</p>																										
SATA disk(s)	<p>250GB or 500GB, SATA 3.0Gb/s 7200 rpm</p>																										
SATA DVD±RW	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>																										
SATA Controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors</p>																										
eSATA port	<p>None</p>																										
Diskette drive	<p>None</p>																										
Media reader	<p><i>Some:</i> 25-in-1 media reader, internal USB 2.0</p>																										
Chipset	<p>AMD 760G Chipset with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O</p>		<p>Supports ThinkVantage technologies</p>																								
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>																										
Rear ports	<p>Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)</p>		<p>GREENGUARD® certified</p> <p>RoHS-compliant</p>																								
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)</p>																										
Internal connector	<p>Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)</p>																										
Audio	<p>High Definition (HD) Audio, Realtek® ALC662 codec</p>																										
Speaker	<p>Internal speaker for business audio</p>																										
Ethernet	<p>Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®</p>																										
Modem	<p>None</p>																										
Security chip	<p>None</p>																										
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>																										
Mouse	<p>Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo</p>																										
Power supply	<p>280 watts with variable speed fan, manual switch</p>																										
<p>Preloaded operating system²⁰</p> <p>- Genuine Windows® 7 Professional 32</p> <p>Preloaded applications⁵ (only some listed)</p> <ul style="list-style-type: none">• ThinkVantage Product Recovery• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)		<p>Accessories</p> <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>1GB PC3-10600 DDR3 UDIMM</td><td>57Y4389</td></tr><tr><td>2GB PC3-10600 DDR3 UDIMM</td><td>57Y4390</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ATI Radeon HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 310 512MB (DP, VGA)</td><td>57Y4397</td></tr><tr><td colspan="2">More accessories on O-A63 sheet</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>	1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	1GB PC3-10600 DDR3 UDIMM	57Y4389	2GB PC3-10600 DDR3 UDIMM	57Y4390	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397	More accessories on O-A63 sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories		
1GB PC3-8500 DDR3 UDIMM	45J5434																										
2GB PC3-8500 DDR3 UDIMM	45J5435																										
1GB PC3-10600 DDR3 UDIMM	57Y4389																										
2GB PC3-10600 DDR3 UDIMM	57Y4390																										
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																										
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																										
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																										
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																										
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397																										
More accessories on O-A63 sheet																											
Acc Guide in pdf lenovo.com/accessoriesguide																											
Other accessories at lenovo.com/accessories																											

See footnotes for important warranty information

US models announced January 12, 2010

⚡ US model withdrawn effective March 2010

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(ALGS1-5) January 2010

Partial list of accessories supported on ThinkCentre A63

Memory

1GB PC3-8500 DDR3 UDIMM ⁴⁰	45J5434	ann 11/18/08
1GB PC3-8500 DDR3 UDIMM (25-Pack)	57Y4421	ann 11/10/09
2GB PC3-8500 DDR3 UDIMM	45J5435	ann 11/18/08
2GB PC3-8500 DDR3 UDIMM (25-Pack)	57Y4422	ann 11/10/09
1GB PC3-10600 DDR3 Low-Halogen UDIMM	57Y4389	ann 01/12/10
1GB PC3-10600 DDR3 L-H UDIMM (25-Pack)	57Y4419	ann 01/12/10
2GB PC3-10600 DDR3 Low-Halogen UDIMM	57Y4390	ann 01/12/10
2GB PC3-10600 DDR3 L-H UDIMM (25-Pack)	57Y4420	ann 01/12/10

⁴⁰ When PC3-8500 is installed with systems that have PC3-10600 memory, PC3-10600 will operate at the PC3-8500 memory speed.

Optical

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Storage and removable storage

250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

⁵³ USB-only attach.

Graphics

DisplayPort™ to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08
ATI™ Radeon™ HD 3470 256MB (DP, VGA) ⁵⁸	45K1636	ann 11/18/08
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

⁵⁰ Attaches to the ThinkCentre compatible DisplayPort graphics card.

⁵⁸ Installing this graphics card does not disable the system monitor ports, thereby allowing a four monitor configuration.

More information at www.lenovo.com/support/graphiccards

Keyboard

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Preferred Pro Full Size PS/2 Keyboard	31P7415	ann 06/04/02
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at www.lenovo.com/support/keyboards

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08

More information at www.lenovo.com/support/mice

Multimedia

ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

⁵⁶ Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

Monitors

Lenovo D186 Wide 18.5" Monitor	2580AB1	ann 01/12/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

More information at www.lenovo.com/thinkvision

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

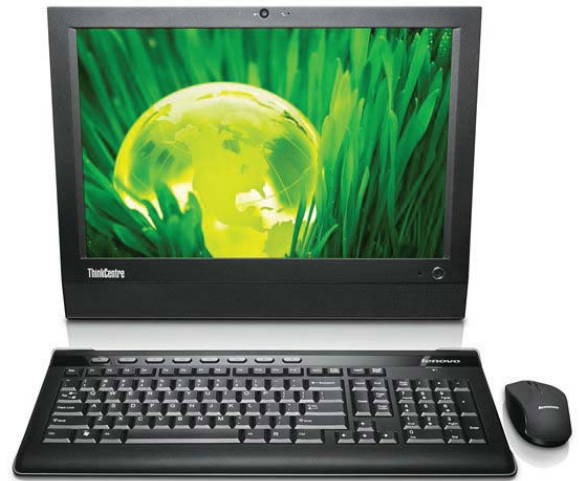
www.lenovo.com/support/accessories
www.lenovo.com/support/desktopaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkCentre A70z All-In-One
(Wireless keyboard & mouse
on selected models only)



Lenovo ThinkCentre A70z All-In-One



Lenovo ThinkCentre A70z All-In-One



Lenovo ThinkCentre A70z All-In-One



ThinkCentre A70z Performance Stand
57Y4277



Lenovo ThinkCentre A70z All-In-One

Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Keyboard /Mouse	ENERGY STAR 5.0	Win7 preload	Global Educ	Avail date
1165-A1U	E3200	2.40	1GB	19.0" WXGA+	1.3M	GMA X4500	250GB ²	DVD±RW		USB	ES50	Home P	None	Dec 09
1165-A2U	E5300	2.60	2GB	19.0" WXGA+	1.3M	GMA X4500	320GB	DVD±RW		USB	ES50	Pro 32	None	Dec 09
1165-A3U	E7500	2.93	2GB	19.0" WXGA+	1.3M	GMA X4500	320GB	DVD±RW	11b/g/n ¹²	USB	ES50	Pro 32	None	Dec 09

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **Best space saving solution & excellent cable management**
- **These models have a 1-year limited warranty¹**

Positioning Processor	<i>All-In-One PC for business customers</i> Intel® Celeron® Processor E3200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache Processor in LGA775 socket		All-In-One <ul style="list-style-type: none">• Business black color• 18.58" W X 2.87" D X 14.0" H• 472mm W X 73mm D X 356mm H• 17.6 lb (8 kg) in maximum configuration• Handle in rear• Support VESA mount (100mm)• Picture frame style metallic stand (Tilt 10°-35°)								
Implementation			Bay ① 3.5", 1" high, no access, std disk (desktop) Bay ② slim, .5" high, access, std optical (notebook)								
Memory	1GB or 2GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory, DirectX® 10		Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)• Boot sequence control• Boot without keyboard, mouse• USB port disablement								
SATA disk	250GB or 320GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm										
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable										
eSATA port	None										
Diskette drive	None										
Media reader	None										
Widescreen display	19.0" (482.6mm) WXGA+ (1440x900) TFT color , anti-glare, CCFL backlight, 300 nits, 16:10 aspect ratio, 1000:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, integrated microphone (mono), LED indicator										
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, integrated microphone (mono), LED indicator										
Chipset	Intel G41 Express Chipset ; I/O Controller Hub 7 (ICH7)										
Ports	<i>Rear:</i> Three USB 2.0, serial (9-pin), ethernet (RJ-45) <i>Side:</i> Three USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Mini PCI Express	One Mini PCI Express slot <i>Some:</i> 11b/g/n wireless ¹³ , Mini PCIe adapter, Broadcom® BCM43225										
11b/g/n ¹²	High Definition (HD) Audio, CONEXANT™ CX20582 codec										
Audio	Two internal speakers (2 watt x 2)										
Speaker	None										
IEEE 1394	None										
Ethernet	Gigabit ethernet on planar, Realtek® RTL8111DL										
Intel AMT	None										
Modem	None										
Security chip	None										
Keyboard	Preferred Pro USB Keyboard (USB), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										
Power supply	130 watts, autosensing, 85% PSU										
Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® 7 Home Premium 32- <i>Some:</i> Genuine Windows 7 Professional 32		Accessories <table><tr><td>1GB PC2-6400 DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>ThinkCentre A70z Performance Stand</td><td>57Y4277</td></tr><tr><td colspan="2">More accessories on O-A70Z sheet</td></tr></table>		1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	ThinkCentre A70z Performance Stand	57Y4277	More accessories on O-A70Z sheet	
1GB PC2-6400 DDR2 UDIMM	41U2977										
2GB PC2-6400 DDR2 UDIMM	41U2978										
ThinkCentre A70z Performance Stand	57Y4277										
More accessories on O-A70Z sheet											
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• ThinkVantage Product Recovery• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)		Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
 US models announced November 17, 2009

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 (TYMA1-1) November 2009

Partial list of accessories supported on ThinkCentre A70z AIO
Memory

1GB PC2-6400 DDR2 UDIMM	41U2977	ann 09/26/06
1GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0549	ann 03/17/09
2GB PC2-6400 DDR2 UDIMM	41U2978	ann 01/08/08
2GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0550	ann 03/17/09

Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Keyboard

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at www.lenovo.com/support/keyboards

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08

More information at www.lenovo.com/support/mice

Multimedia

ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Stand

ThinkCentre A70z Performance Stand	57Y4277	ann 11/17/09
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Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Kensington MicroSaver Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/desktopaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

**Partial list of Lenovo® ThinkPlus Services⁷
for ThinkCentre desktops**

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html
ThinkPlus service upgrade options for ThinkCentre M series
ThinkCentre desktop with 1-year Onsite warranty
LOR = Lenovo Onsite Repair

1-year LOR 9x5 4-hour response	41C9189
2-year LOR 9x5 Next Business Day	41C9187
2-year LOR 9x5 4-hour response	41C9190
3-year LOR 9x5 Next Business Day	41C9188
3-year LOR 9x5 4-hour response	41C9191

ThinkCentre desktop with 3-year Onsite warranty
LOR = Lenovo Onsite Repair

3-year LOR 9x5 4-hour response	41C9192
3-year LOR 24x7 4-hour response	41C9193
4-year LOR 9x5 Next Business Day	41C9194
4-year LOR 9x5 4-hour response	41C9195
4-year LOR 24x7 4-hour response	41C9196

ThinkPlus service upgrade options for ThinkCentre A series
ThinkCentre desktop with 1-year Onsite warranty
LOR = Lenovo Onsite Repair

1-year LOR 9x5 4-hour response	45K5951
2-year LOR 9x5 Next Business Day	45K5949
2-year LOR 9x5 4-hour response	45K5952
3-year LOR 9x5 Next Business Day	45K5950
3-year LOR 9x5 4-hour response	45K5953

ThinkCentre desktop with 3-year Onsite warranty
LOR = Lenovo Onsite Repair

3-year LOR 9x5 4-hour response	45K5955
3-year LOR 24x7 4-hour response	45K5956
4-year LOR 9x5 Next Business Day	45K5957
4-year LOR 9x5 4-hour response	45K5958
4-year LOR 24x7 4-hour response	45K5959
5-year LOR 9x5 Next Business Day	45K5963

ThinkPlus Secure Business
Lenovo Online Data Backup

- Secure offsite data storage
- 256-bit Advanced Encryption System
- Data recovery or access in case of an unforeseen event
- Automatic, remote management
- Choose which business critical data to back up

1-year Lenovo Online Data Backup - 10GB	51J0787
1-year Lenovo Online Data Backup - 25GB	51J0795
1-year Lenovo Online Data Backup - 50GB	45K5849
1-year Lenovo Online Data Backup - Unlimited	45K5870

ThinkPlus Priority Support for enterprise customers

- 9x5 next-business-day response Lenovo Onsite Repair
- 24x7 support with priority routing and advanced level technicians

ThinkCentre desktop with 1-year Onsite warranty

3-year Priority Support	45J9087
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ThinkCentre desktop with 3-year Onsite warranty

3-year Priority Support	45J9088
4-year Priority Support	45J9089
5-year Priority Support	45J9090
3-year Priority Support 4-hour response	45J9091
4-year Priority Support 4-hour response	45J9092
5-year Priority Support 4-hour response	45J9093

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

- ¹ **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.
- ² **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
- ³ **Limited onsite service systems** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges. Lenovo onsite repair (LOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day (NBD) response time.
- ⁴ **CD and DVD list** maximum rates; rates are variable and are often less than the maximum.
- ⁵ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. License agreements may apply.

⁶ **Multi-Burner Plus** (part number 73P3305 or 73P3370) is a DVD±RW device that reads and writes to DVD-RAM, DVD-R, DVD-RW, DVD+R, and DVD+RW. It also reads and writes to CD-R and CD-RW media. 73P3370 also writes to DVD+R double layer media.

⁷ **ThinkPlus Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

⁸ **Memory:** For PCs without a separate graphics card, memory supports both system and video. Accessible system memory may be up to 384MB less than the amount stated, depending on video mode.

⁹ **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

¹⁰ **Modem speeds:** Public network download speeds are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.

¹¹ **For combination drives,** maximum speeds only are given in the following order: CD read, CD write, CD re-write, DVD read.

¹² **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.

¹³ **Wireless capability:** Requires compatible wireless-enabled options sold separately.

¹⁴ **Response times may vary.** May exclude some holidays. Telephone support may be subject to additional charges.

¹⁵ **Update Connector** is available at no charge to registered customers during the limited warranty period. Line charges may apply.

¹⁶ **Embedded Security Subsystem** works with optional VPN software.

- ¹⁸ **Embedded Security Subsystem** may require download of client security software from the Web.
- ¹⁹ **Asset ID** allows system-specific information to be stored in a chip inside the system; it does not have any radio frequency support.
- ²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.

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May 2010
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Personal Systems Reference Lenovo® ThinkStation® Workstations

May 2010 - Version 377



ThinkStation E20 (left)
ThinkStation S20 (middle)
ThinkStation D20 (right)

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ThinkStation.



Lenovo ThinkStation E20



Lenovo ThinkStation E20
with ThinkVision® L2440p (4420HB2)



Lenovo ThinkStation E20



Lenovo ThinkStation Graphics Card Option
NVIDIA® Quadro® NVS 295 (45K1669)



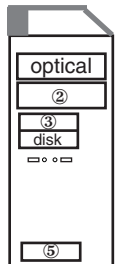
Lenovo ThinkStation Graphics Card Option
NVIDIA Quadro FX 380 (45K1670)



Lenovo ThinkStation Graphics Card Option
NVIDIA Quadro FX 580 (45K1671)

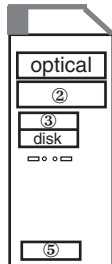
Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	ECC memory	Disk(s)	Disk size	Pre-conf RAID	SATA optical	1394 adptr	Graphics adapter(s)	ENERGY STAR 5.0	Win7 preload	Global	Avail date
4222-35U	4x5	G6950	2.80	2	1x2GB	1333MHz	No	1x250GB ²	3.5"	No	DVD±RW	No	FX380	Pending	Pro64	No	Feb 10
4222-36U	4x5	i3-530	2.93	2	2x2GB	1333MHz	No	1x500GB	3.5"	No	DVD±RW	No	FX380	Pending	Pro64	No	Feb 10
4222-37U	4x5	i5-650	3.20	2	2x2GB	1333MHz	No	1x500GB	3.5"	No	DVD±RW	No	FX580	Pending	Pro64	No	Feb 10

- **Faster, more efficient architecture with the latest Intel® workstation technology**
- **True workstation-level performance at incredibly low price point**
- **High Reliability with Independent Software Vendors (ISV) certified applications and ECC memory support**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Processor	Intel Pentium® Processor G6950 with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, and 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache or Intel Core i5 Processor i5-650 with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology (up to 3.46GHz at max turbo mode), Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket, up to one processor			Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 17.0"D x 16.7"H (with handle)• 175mm W x 431mm D x 425mm H• 24.7 lb (11.2kg) max configuration• 32-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Recessed power button 																								
Implementation				Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, opt disk Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length,full-height, PCIe 2.0 x1 Slot 3: half-length,full-height, 32-bit PCI 2.3 Slot 4: half-length,full-height, 32-bit PCI 2.3																								
Memory	2GB or 4GB std, 8GB max*, UDIMM, PC3-10600 1333MHz DDR3** , Non-ECC*** , four 240-pin DIMM sockets * Maximum memory is 16GB for ECC models and 8GB for Non-ECC models ** System automatically clocks down for processors with 1066MHz DDR3 memory controller *** ECC and non-ECC DIMMs cannot be mixed																											
Graphics	<i>Some:</i> NVIDIA® Quadro® FX 380 , PCI Express® (PCIe) x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some:</i> NVIDIA Quadro FX 580 , PCIe x16 adapter, 512MB, two DisplayPort™, one dual-link DVI-I****, 40W **** Only two display connectors are active at a time																											
Media reader	25-in-1 media reader, internal USB 2.0			SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse• Serial port I/O control• USB port disablement (front or all)																								
SATA disk(s)	250GB or 500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"																											
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																											
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID 0, 1 support, two SATA connectors for disks, two SATA connectors for opticals																											
Chipset	Intel 3450 Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O																											
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)																											
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)																											
IEEE 1394 adptr	None																											
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																											
Speaker	Internal speaker for business audio																											
Ethernet	One gigabit ethernet on planar, Intel 82578DM																											
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																											
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			Supports ThinkVantage® technologies																								
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																											
Power supply	280 watts with variable speed fan, autosensing, 85% PSU, 80 PLUS® Bronze qualified			GREENGUARD® certified RoHS-compliant Pending: ENERGY STAR® 5.0-compliant																								
Cooling	4 fans (power supply, CPU, rear, front)																											
Rack mount	Rack shelf support			LIMITED WARRANTY¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																								
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 64 Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)				Accessories <table><tr><td>1GB PC3-10600 DDR3 Non-ECC UDIMM</td><td>57Y4389</td></tr><tr><td>2GB PC3-10600 DDR3 Non-ECC UDIMM</td><td>57Y4390</td></tr><tr><td>160GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>09N4254</td></tr><tr><td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>41N3015</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s</td><td>45K1675</td></tr><tr><td>NVIDIA Quadro 256MB NVS 295</td><td>45K1669</td></tr><tr><td>NVIDIA Quadro 512MB NVS 450</td><td>57Y4398</td></tr><tr><td>NVIDIA Quadro 256MB FX 380</td><td>45K1670</td></tr><tr><td>NVIDIA Quadro 512MB FX 580</td><td>45K1671</td></tr></table> More accessories on O-CAD sheet Other accessories at lenovo.com/accessories			1GB PC3-10600 DDR3 Non-ECC UDIMM	57Y4389	2GB PC3-10600 DDR3 Non-ECC UDIMM	57Y4390	160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Blu-ray™ Burner SATA 1.5Gb/s	45K1675	NVIDIA Quadro 256MB NVS 295	45K1669	NVIDIA Quadro 512MB NVS 450	57Y4398	NVIDIA Quadro 256MB FX 380	45K1670	NVIDIA Quadro 512MB FX 580	45K1671
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NVIDIA Quadro 256MB NVS 295	45K1669																											
NVIDIA Quadro 512MB NVS 450	57Y4398																											
NVIDIA Quadro 256MB FX 380	45K1670																											
NVIDIA Quadro 512MB FX 580	45K1671																											

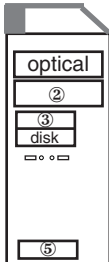
Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	ECC memory	Disk(s)	Disk size	Pre-conf RAID	SATA optical	1394 adptr	Graphics adapter(s)	ENERGY STAR 5.0	Preload	Global	Avail date
4222-56U	4x5	G6950	2.80	2	1x2GB	1333MHz	No	1x250GB	3.5"	No	DVD±RW	No	FX380	Pending	XP Pro	No	Mar 10

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- **This small and medium business (SMB) models is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty¹**

Processor	Intel Pentium® Processor G6950 with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, and 3MB cache Processor in LGA1156 socket, up to one processor										Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 17.0"D x 16.7"H (with handle)• 175mm W x 431mm D x 425mm H• 24.7 lb (11.2kg) max configuration• 32-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Recessed power button 						
Implementation																	
Memory	2GB std, 8GB max*, UDIMM, PC3-10600 1333MHz DDR3** , Non-ECC*** , four 240-pin DIMM sockets * Maximum memory is 16GB for ECC models and 8GB for Non-ECC models ** System automatically clocks down for processors with 1066MHz DDR3 memory controller *** ECC and non-ECC DIMMs cannot be mixed																
Graphics	NVIDIA® Quadro® FX 380 , PCI Express® (PCIe) x16 adapter, 256MB, two dual-link DVI-I, 35W																
Media reader	25-in-1 media reader, internal USB 2.0																
SATA disk(s)	250GB , SATA 3.0Gb/s, 7200 rpm, 3.5"																
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID 0, 1 support, two SATA connectors for disks, two SATA connectors for opticals																
Chipset	Intel 3450 Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O										Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3						
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)																
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)																
IEEE 1394 adptr	None																
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																
Speaker	Internal speaker for business audio																
Ethernet	One gigabit ethernet on planar, Intel 82578DM																
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																
Power supply	280 watts with variable speed fan, autosensing, 85% PSU, 80 PLUS® Bronze qualified																
Cooling	4 fans (power supply, CPU, rear, front)																
Rack mount	Rack shelf support																
Preloaded operating system²⁰					Accessories												
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• ThinkVantage Toolbox• Norton™ Internet Security 2009 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft® Office 2007 Trial (60-day)• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)					- Genuine Windows® XP Professional 32-bit (preinstalled via downgrade rights in Windows 7 Professional 64-bit)												
					1GB PC3-10600 DDR3 Non-ECC UDIMM 57Y4389												
					2GB PC3-10600 DDR3 Non-ECC UDIMM 57Y4390												
					160GB SATA 3.0Gb/s Disk (7200 rpm) 09N4254												
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					1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
					Blu-ray™ Burner SATA 1.5Gb/s 45K1675												
					NVIDIA Quadro 256MB NVS 295 45K1669												
					NVIDIA Quadro 512MB NVS 450 57Y4398												
					NVIDIA Quadro 256MB FX 380 45K1670												
					NVIDIA Quadro 512MB FX 580 45K1671												
					More accessories on O-CAD sheet												
					Other accessories at lenovo.com/accessories												
SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse• Serial port I/O control• USB port disablement (front or all)																	
Supports ThinkVantage® technologies																	
GREENGUARD® certified RoHS-compliant Pending: ENERGY STAR® 5.0-compliant																	
LIMITED WARRANTY¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																	

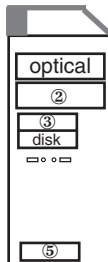
Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	ECC memory	Disk(s)	Disk size	Pre-conf RAID	SATA optical	1394 adptr	Graphics adapter(s)	ENERGY STAR 5.0	Win7 preload	Global (G) GMP (P)	Avail date
4220-34U	4x5	i3-530	2.93	2	2x2GB	1333MHz		1x500GB ²	3.5"	No	DVD±RW	No	FX380	Pending	Pro64	No	Feb 10
4220-35U	4x5	G6950	2.80	2	1x2GB	1333MHz		1x500GB	3.5"	No	DVD±RW	No	FX380	Pending	Pro64	No	Feb 10
4220-36U	4x5	X3430	2.40	4	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	No	FX580	Pending	Pro64	No	Feb 10
4220-37U	4x5	X3440	2.53	4	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	No	FX1800	Pending	Pro64	No	Feb 10

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Processor	Intel Pentium® Processor G6950 with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, and 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache or Intel Xeon® Processor X3430 with quad-core, Intel 64, Virtualization Technology, TXT, Turbo Boost Technology (up to 2.80GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, and 8MB cache or Intel Xeon Processor X3440 with quad-core, Intel 64, Hyper-Threading Technology, Virtualization Technology, TXT, Turbo Boost Technology (up to 2.93GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, and 8MB cache																
Implementation	Processor in LGA1156 socket, up to one processor																
Memory	2GB or 4GB std, PC3-10600 1333MHz DDR3*, UDIMM, four 240-pin DIMM sockets 34U/35U: 8GB max**, Non-ECC*** 36U/37U: 16GB max, ECC * System automatically clocks down for processors with 1066MHz DDR3 memory controller ** Max memory is 16GB for ECC models and 8GB for Non-ECC models *** ECC and non-ECC DIMMs cannot be mixed																
Graphics	<i>Some:</i> NVIDIA® Quadro® FX 380, PCI Express® (PCIe) x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some:</i> NVIDIA Quadro FX 580, PCIe x16 adapter, 512MB, two DisplayPort™, one dual-link DVI-I***, 40W <i>Some:</i> NVIDIA® Quadro® FX 1800, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I***, 59W *** Only two display connectors are active at a time																
Media reader	25-in-1 media reader, internal USB 2.0																
SATA disk(s)	500GB, SATA 3.0Gb/s, 7200 rpm, 3.5"																
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID 0, 1 support, two SATA connectors for disks, two SATA connectors for opticals																
Chipset	Intel 3450 Chipset, Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O																
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)																
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)																
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Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																
Power supply	280 watts with variable speed fan, autosensing, 85% PSU, 80 PLUS® Bronze qualified																
Cooling	4 fans (power supply, CPU, rear, front)																
Rack mount	Rack shelf support																
Preloaded operating system²⁰					Accessories												
- Genuine Windows® 7 Professional 64					2GB PC3-10600 DDR3 Non-ECC UDIMM 57Y4390												
					4GB PC3-10600 DDR3 ECC UDIMM 57Y4138												
					1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
					More accessories on O-CAD sheet												
					Other accessories at lenovo.com/accessories												
Tower																	
<ul style="list-style-type: none"> • Raven black color; metal case • 6.9"W x 17.0"D x 16.7"H (with handle) • 175mm W x 431mm D x 425mm H • 24.7 lb (11.2kg) max configuration • 32-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support • Recessed power button 																	
Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, opt disk																	
Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																	
												SECURITY					
												<ul style="list-style-type: none"> • Security chip (see information on left) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse • Serial port I/O control • USB port disablement (front or all) 					
												Supports ThinkVantage® technologies					
												GREENGUARD® certified RoHS-compliant Pending: ENERGY STAR® 5.0-compliant					
												LIMITED WARRANTY¹					
												➤ 3-year parts and labor ➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ➤ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty <ul style="list-style-type: none"> • Onsite service upgrade options (in eligible locations)⁷ • Post warranty maintenance services ➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378					

Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	ECC memory	Disk(s)	Disk size	Pre-conf RAID	SATA optical	1394 adptr	Graphics adapter(s)	ENERGY STAR 5.0	Preload	Global	Avail date
4220-65U	4x5	X3450	2.66	4	1x2GB	1333MHz	ECC	1x500GB ²	3.5"	No	DVD±RW	1394	FX580	Pending	XP Pro	No	May 10
4220-66U	4x5	i5-650	3.20	2	1x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	1394	FX380	Pending	XP Pro	No	May 10
4220-67U	4x5	i5-670	3.46	2	1x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	1394	FX1800	Pending	XP Pro	No	May 10

- **Faster, more efficient architecture with the latest Intel® workstation technology**
- **True workstation-level performance at incredibly low price point**
- **High Reliability with Independent Software Vendors (ISV) certified applications and ECC memory support**
- **These models have a 3-year limited warranty¹**

Processor	Intel Core™ i5 Processor i5-650 or i5-670 with dual-core, Intel 64, Hyper-Threading Technology, Virtualization Technology, TXT, Turbo Boost Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache or Intel Xeon® Processor X3450 with quad-core, Intel 64, Hyper-Threading Technology, Virtualization Technology, TXT, Turbo Boost Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 8MB cache		Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 17.0"D x 16.7"H (with handle)• 175mm W x 431mm D x 425mm H• 24.7 lb (11.2kg) max configuration• 32-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support• Recessed power button 	
Implementation	Processor in LGA1156 socket, up to one processor			
Memory	2GB std, 16GB max, PC3-10600 1333MHz DDR3, UDIMM, ECC four 240-pin DIMM sockets			
Graphics	<i>Some:</i> NVIDIA® Quadro® FX 380, PCI Express® (PCIe) x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some:</i> NVIDIA Quadro FX 580, PCIe x16 adapter, 512MB, two DisplayPort™, one dual-link DVI-I*, 40W <i>Some:</i> NVIDIA® Quadro® FX 1800, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I*, 59W * Only two display connectors are active at a time		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (media reader) Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, opt disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3	
Media reader	None		SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse• Serial port I/O control• USB port disablement (front or all)	
SATA disk(s)	500GB, SATA 3.0Gb/s, 7200 rpm, 3.5"			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID 0, 1 support, two SATA connectors for disks, two SATA connectors for opticals			
Chipset	Intel 3450 Chipset, Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O			
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)			
IEEE 1394 adptr	FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	Internal speaker for business audio			
Ethernet	One gigabit ethernet on planar, Intel 82578DM			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosensing, 85% PSU, 80 PLUS® Bronze qualified			
Cooling	4 fans (power supply, CPU, rear, front)			
Rack mount	Rack shelf support		Supports ThinkVantage® technologies	
Preloaded operating system²⁰		Accessories		GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0-compliant LIMITED WARRANTY¹ ➤ 3-year parts and labor ➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ➤ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty • Onsite service upgrade options (in eligible locations) ⁷ • Post warranty maintenance services ➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
- Genuine Windows® XP Professional 32-bit (preinstalled via downgrade rights in Windows 7 Professional 64-bit)		1GB PC3-10600 DDR3 ECC UDIMM 43R2032		
		2GB PC3-10600 DDR3 ECC UDIMM 43R2033		
		4GB PC3-10600 DDR3 ECC UDIMM 57Y4138		
		160GB SATA 3.0Gb/s Disk (7200 rpm) 09N4254		
		250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015		
		500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
		1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918		
		Blu-ray™ Burner SATA 1.5Gb/s 45K1675		
		NVIDIA Quadro 256MB NVS 295 45K1669		
		NVIDIA Quadro 512MB NVS 450 57Y4398		
		NVIDIA Quadro 256MB FX 380 45K1670		
		NVIDIA Quadro 512MB FX 580 45K1671		
		More accessories on O-CAD sheet		
		Other accessories at lenovo.com/accessories		

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- *High Reliability with Independent Software Vendors (ISV) certified applications and ECC memory support*
- *This small and medium business (SMB) models is part of the US TopSeller™ Program*
- *This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty*

See footnotes for important warranty information
US model announced January 19, 2010

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(CAD1-1) February 2010

Partial list of accessories supported on ThinkStation E20

Memory

1GB PC3-10600 DDR3 Non-ECC UDIMM	57Y4389	ann 01/12/10
1GB PC3-10600 DDR3 Non-ECC (25-Pack)	57Y4419	ann 01/12/10
2GB PC3-10600 DDR3 Non-ECC UDIMM	57Y4390	ann 01/12/10
2GB PC3-10600 DDR3 Non-ECC (25-Pack)	57Y4420	ann 01/12/10
1GB PC3-10600 DDR3 ECC UDIMM	43R2032	ann 03/31/09
2GB PC3-10600 DDR3 ECC UDIMM	43R2033	ann 03/31/09
4GB PC3-10600 DDR3 ECC UDIMM	57Y4138	ann 08/04/09

More information on memory and processor configuration, operation and limitation, please visit:

www.lenovo.com/support/thinkstationaccessories

Optical

DVD-ROM DL SATA1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA1.5Gb/s	41N5620	ann 09/26/06
Blu-ray™ Burner SATA1.5Gb/s	45K1675	ann 03/31/09

Storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08
150GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2030	ann 03/31/09
300GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2031	ann 03/31/09

Removable storage

USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
Lenovo® USB Portable DVD Burner	43N3264	ann 01/05/10

Keyboard

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Lenovo USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09

More information at www.lenovo.com/support/keyboards

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at www.lenovo.com/support/mice

Monitors

Lenovo D186 Wide 18.5" Monitor	2580AB1	ann 01/12/10
Lenovo L2461x Wide 23.6" Monitor	4015HB1	ann 01/05/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

More information at www.lenovo.com/thinkvision

Monitor accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Graphics

DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08
NVIDIA Quadro 256MB NVS 295	45K1669	ann 04/21/09
NVIDIA Quadro 512MB NVS 450	57Y4398	ann 01/19/10
NVIDIA Quadro 256MB FX 380	45K1670	ann 03/31/09
NVIDIA Quadro 512MB FX 580	45K1671	ann 03/31/09
NVIDIA Quadro 768MB FX 1800	45K1672	ann 03/31/09

⁵⁰ Attaches to selected DisplayPort graphics cards.

More information at www.lenovo.com/support/graphiccards

Security

Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

For more information on ThinkStation accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/thinkstationaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkStation.



Lenovo ThinkStation S20



Lenovo ThinkStation S20



Lenovo ThinkStation S20



Lenovo ThinkStation S20 (left)
Lenovo ThinkStation D20 (right)



Lenovo ThinkStation Graphics Card Option
NVIDIA® Quadro® FX 380 (45K1670)



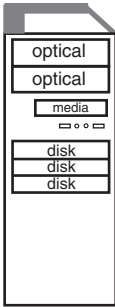
Lenovo ThinkStation Graphics Card Option
ATI™ FirePro™ V3700 (51J0509)

- ***These small and medium business (SMB) models are part of the US TopSeller™ Program***

A diagram of a storage hierarchy represented as a stack of components. From top to bottom, the components are: 'optical', 'optical', 'media', 'disk', 'disk', and 'disk'. The 'optical' components are grouped by a bracket on the left. The 'media' component is a single block. The 'disk' components are grouped by a bracket on the left. To the right of the 'media' block are three small circles, indicating a sequence or continuation.

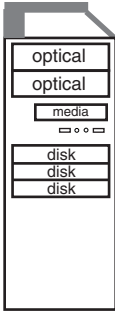
Name	Type-model	Slot x bay	Processor	GHz	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adpdr	ENERGY STAR 5.0	Win7 preload	Avail date
S20	4105-97U	5x6	W3503	2.40	2x1GB	1333MHz	1x500GB ²	3.5"	No	DVD±RW	Media	1xFX380	No	Pending	Pro64	Oct 09
S20	4105-98U	5x6	W3505	2.53	2x1GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX580	No	Pending	Pro64	Oct 09
S20	4105-99U	5x6	W3520	2.66	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX1800	No	Pending	Pro64	Oct 09

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Processor	Intel Xeon® Processor W3503 or W3505 with dual-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Virtualization Technology, 1066MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor W3520 with quad-core , 4.8GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology (up to 2.93GHz at max turbo mode), 1066MHz DDR3 memory controller, and 8MB cache Processor uses FC-LGA8 package, one LGA1366 socket			Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 18.8"H (with handle)• 175mm W x 483mm D x 478mm H• 38.5 lb (17.5kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support					
Implementation	Processor uses FC-LGA8 package, one LGA1366 socket								
Memory	2GB or 4GB std, 24GB max, UDIMM , PC3-10600 1333MHz DDR3***, ECC , 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 1066MHz DDR3 memory controller								
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU <i>Some: NVIDIA® Quadro® FX 380</i> , PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some: NVIDIA Quadro FX 580</i> , PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I****, 40W <i>Some: NVIDIA Quadro FX 1800</i> , PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W **** Only two display connectors are active at a time			Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, opt disk Bay ⑥ 3.5", 1" high, internal, opt disk Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x4** Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 4: full-length, full-height, PCIe x1 Slot 5: half-length, full-height, 32-bit PCI 2.3 ** x16 mechanical					
Media reader	20-in-1 media reader, internal USB 2.0			SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)					
SATA disk(s)	500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"								
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive								
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals								
Chipset	Intel X58 Express Chipset , Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O								
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)								
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in								
IEEE 1394 adpdr	None								
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec								
Speaker	Internal speaker for business audio								
Ethernet	One gigabit ethernet on planar, Broadcom® BCM5755								
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant								
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black								
Mouse	Optical Wheel Mouse (USB connector), black								
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified								
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])								
Rack mount	Rack shelf support								
Preloaded operating system²⁰			Accessories						
- Genuine Windows® 7 Professional 64			1GB PC3-8500 DDR3 ECC UDIMM 51J0503						
			2GB PC3-8500 DDR3 ECC UDIMM 51J0504						
			1GB PC3-10600 DDR3 ECC UDIMM 43R2032						
			2GB PC3-10600 DDR3 ECC UDIMM 43R2033						
			4GB PC3-10600 DDR3 ECC UDIMM 57Y4138						
			1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918						
			Blu-ray™ Burner SATA 1.5Gb/s 45K1675						
			ThinkStation Rail Kit 43R1964						
			USB 2.0 Ultra Secure Memory Key 8GB 45J5918						
			ThinkVision® L2440p Wide 24" Monitor 4420HB2						
			NVIDIA Quadro NVS 290 43R1765						
			ATI™ FirePro™ 1GB V7750 51J0511						
			Other accessories at lenovo.com/accessories						
Preloaded applications⁵ (only some listed)									
• Rescue and Recovery™									
• ThinkVantage System Update									
• Norton Internet Security™ (30 days of virus definitions)									
• Adobe® Reader									
• Microsoft® Office 2007 Trial (60-day)									
• Roxio® Creator® Business Edition (DVD±RW)									
• Roxio MyDVD® (DVD±RW)									
• Corel® WinDVD® (DVD±RW)									
						Supports ThinkVantage® technologies			
						GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0-compliant			
						LIMITED WARRANTY¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378			

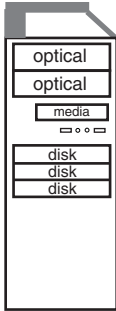
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	ENERGY STAR 5.0	Win7 preload	Avail date
S20	4105-K2U	5x6	W3530	2.80	4	3x2GB	1066MHz	1x500GB	3.5"	No	DVD±RW	Media	None	Pending	Pro 64	May 10

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- **This model has a 3-year limited warranty¹**

Processor	Intel Xeon® Processor W3530 with quad-core, 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, 1066MHz DDR3 memory controller, and 8MB cache or Processor uses FC-LGA8 package, one LGA1366 socket			Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 18.8"H (with handle)• 175mm W x 483mm D x 478mm H• 38.5 lb (17.5kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support 
Implementation				
Memory	6GB std, 24GB max, UDIMM, PC3-8500 1066MHz DDR3, ECC , 3-channel capable, six 240-pin DIMM sockets			
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU None			
Media reader	20-in-1 media reader, internal USB 2.0			
SATA disk(s)	500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals			
Chipset	Intel X58 Express Chipset , Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O			Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, opt disk Bay ⑥ 3.5", 1" high, internal, opt disk
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)			Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x4** Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 4: full-length, full-height, PCIe x1 Slot 5: half-length, full-height, 32-bit PCI 2.3
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in			** x16 mechanical
IEEE 1394 adptr	None			SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec			
Speaker	Internal speaker for business audio			
Ethernet	One gigabit ethernet on planar, Broadcom® BCM5755			
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			Supports ThinkVantage® technologies
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified			
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])			
Rack mount	Rack shelf support			
Preloaded operating system²⁰				LIMITED WARRANTY¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
Accessories				
- Genuine Windows® 7 Professional 64		1GB PC3-8500 DDR3 ECC UDIMM	51J0503	
		2GB PC3-8500 DDR3 ECC UDIMM	51J0504	
Preloaded applications⁵ (only some listed)		1GB PC3-10600 DDR3 ECC UDIMM	43R2032	
• Rescue and Recovery™		2GB PC3-10600 DDR3 ECC UDIMM	43R2033	
• ThinkVantage System Update		4GB PC3-10600 DDR3 ECC UDIMM	57Y4138	
• Norton Internet Security™ (30 days of virus definitions)		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• Adobe® Reader		Blu-ray™ Burner SATA 1.5Gb/s	45K1675	
• Microsoft® Office 2007 Trial (60-day)		NVIDIA Quadro NVS 290	43R1765	
• Roxio® Creator® Business Edition (DVD±RW)		NVIDIA Quadro FX 580	45K1671	
• Roxio MyDVD® (DVD±RW)		ATI™ FirePro™ 1GB V7750	51J0511	
• Corel® WinDVD® (DVD±RW)		Other accessories at lenovo.com/accessories		

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	ENERGY STAR 5.0	Preload	Avail date
S20	4105-F6U	5x6	E5507	2.26	4	2x2GB	1333MHz	1x500GB ²	3.5"	No	DVD±RW	Media	1xFX380	Pending	XP Pro	Mar 10
S20	4105-F7U	5x6	W3530	2.80	4	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX380	Pending	XP Pro	Mar 10
S20	4105-J3U	5x6	E5507	2.26	4	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX1800	Pending	XP Pro	Mar 10
S20	4105-J4U	5x6	W3503	2.40	2	2x1GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX380	Pending	XP Pro	Mar 10

- **Faster, more efficient architecture with the latest Intel® workstation technology**
- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **Innovative thermal design with optimized fan placement, for a cooler, quieter, more reliable PC**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Processor	Intel Xeon® Processor W3503 with dual-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Virtualization Technology, 1066MHz DDR3 memory controller, and 4MB cache or Intel Xeon® Processor W3530 with quad-core , 4.8GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology (up to 3.06GHz at max turbo mode), 1066MHz DDR3 memory controller, and 8MB cache or Intel Xeon Processor E5507 with quad-core , Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache Processor uses FC-LGA8 package, one LGA1366 socket		Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 18.8"H (with handle)• 175mm W x 483mm D x 478mm H• 38.5 lb (17.5kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support 	
Implementation			Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, opt disk Bay ⑥ 3.5", 1" high, internal, opt disk Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x4** Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 4: full-length, full-height, PCIe x1 Slot 5: half-length, full-height, 32-bit PCI 2.3 ** x16 mechanical	
Memory	2GB or 4GB std, 24GB max, UDIMM , PC3-10600 1333MHz DDR3***, ECC , 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller			
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU <i>Some: NVIDIA® Quadro® FX 380, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W</i> <i>Some: NVIDIA Quadro FX 1800, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W</i> **** Only two display connectors are active at a time			
Media reader	20-in-1 media reader, internal USB 2.0			
SATA disk(s)	500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for optics			
Chipset	Intel X58 Express Chipset , Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O			
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)			
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in			
IEEE 1394 adptr	None			
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec			
Speaker	Internal speaker for business audio			
Ethernet	One gigabit ethernet on planar, Broadcom® BCM5755			
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified			
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])			
Rack mount	Rack shelf support			
Preloaded operating system²⁰		Accessories		
- Genuine Windows® XP Professional 32-bit ***** (preinstalled via downgrade rights in Windows 7 Professional 64-bit)		1GB PC3-8500 DDR3 ECC UDIMM		51J0503
		2GB PC3-8500 DDR3 ECC UDIMM		51J0504
		1GB PC3-10600 DDR3 ECC UDIMM		43R2032
		2GB PC3-10600 DDR3 ECC UDIMM		43R2033
		4GB PC3-10600 DDR3 ECC UDIMM		57Y4138
		1TB SATA 3.0Gb/s Disk (7200 rpm)		45J7918
		Blu-ray™ Burner SATA 1.5Gb/s		45K1675
		USB 2.0 Ultra Secure Memory Key 8GB		45J5918
		ThinkVision® L2440p Wide 24" Monitor		4420HB2
		ATI™ FirePro™ 1GB V7750		51J0511
		Other accessories at lenovo.com/accessories		

Name	Type-model	Slot x bay	Processor	GHz	Memory DIMMs	Memory speed	Disk(s)	Disk size RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	ENERGY STAR 5.0	Preload	Avail date
⚡ S20	4157-11U	5x6	W3520	2.66	2 x 1GB	1066MHz	1 x 250GB ²	3.5"	DVD±RW	Media	1 x FX380		ES50	Bus32	Mar 09
⚡ S20	4157-12U	5x6	W3520	2.66	2 x 1GB	1066MHz	1 x 500GB	3.5"	DVD±RW	Media	1 x FX580			Bus32	Mar 09
⚡ S20	4157-13U	5x6	E5502	1.86	2 x 2GB	1066MHz	2 x 150GB	2.5"	1 DVD±RW	Media	1 x FX1800	1394		Bus64	Mar 09
⚡ S20	4157-14U	5x6	E5506	2.13	2 x 1GB	1066MHz	2 x 250GB	3.5"	DVD±RW	Media	1 x FX380	1394	ES50	Bus32	Mar 09
⚡ S20	4157-15U	5x6	E5506	2.13	2 x 1GB	1066MHz	1 x 250GB	3.5"	DVD±RW	Media	1 x NVS290	1394		Bus32	Mar 09
⚡ S20	4157-16U	5x6	E5506	2.13	2 x 2GB	1066MHz	2 x 500GB	3.5"	0 DVD±RW	Media	1 x FX4800		ES50	Bus64	Mar 09
⚡ S20	4157-48U	5x6	W3540	2.93	2 x 1GB	1066MHz	1 x 250GB	3.5"	DVD	Media	1 x V3700			Bus32	Mar 09
⚡ S20	4157-49U	5x6	E5506	2.13	4 x 1GB	1066MHz	1 x 250GB	3.5"	DVD	Media	1 x V5700			Bus64	Mar 09
⚡ S20	4157-51U	5x6	E5540	2.53	4 x 1GB	1066MHz	2 x 300GB	2.5"	0 DVD±RW	Media	1 x V7750			Bus64	Mar 09
S20	4157-52U	5x6	E5506	2.13	3 x 1GB	1066MHz	1 x 250GB	3.5"	DVD±RW	Media	1 x FX1800			Pro64	Mar 09
<div> <div>Processor</div> <div> Intel® Xeon® Processor W3520 or W3540 with quad-core, 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 1066MHz DDR3 memory controller, and 8MB cache or Intel Xeon Processor E5502 with dual-core, 4.8GT/s QPI, 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5506 with quad-core, 4.8GT/s QPI, 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5540 with quad-core, 5.86GT/s QPI, 1066MHz DDR3 memory controller, and 8MB cache Processor uses FC-LGA8 package, one LGA1366 socket </div> </div> <div> <div>Implementation</div> <div> 2GB, 3GB, or 4GB std, 24GB max, UDIMM, PC3-8500 1066MHz DDR3***, ECC, 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 800MHz DDR3 memory controller </div> </div> <div> <div>Graphics</div> <div> Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU <i>Some: NVIDIA® Quadro® NVS 290</i>, PCIe x16 adapter, 256MB, two single-link DVI via DMS-59 with dual DVI-I dongle, 21W <i>Some: NVIDIA Quadro FX 380</i>, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some: NVIDIA Quadro FX 580</i>, PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I****, 40W <i>Some: NVIDIA Quadro FX 1800</i>, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W <i>Some: NVIDIA Quadro FX 4800</i>, PCIe x16 adapter, 1.5GB, 2 slot width, two DisplayPort, one dual-link DVI-I****, 121W <i>Some: ATI™ FirePro™ V3700</i>, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some: ATI FirePro V5700</i>, PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I****, 49W <i>Some: ATI FirePro V7750</i>, PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I****, 76W **** Only two display connectors are active at a time </div> </div> <div> <div>Media reader</div> <div>20-in-1 media reader, internal USB 2.0</div> </div> <div> <div>SATA disk(s)</div> <div> <i>Some: 250GB or 500GB</i>, SATA 3.0Gb/s, 7200 rpm, 3.5" <i>Some: 150GB or 300GB</i>, SATA 3.0Gb/s, 10000 rpm, 2.5" <i>Some: DVD-ROM DL SATA 1.5Gb/s 16X-48X Max4 Drive</i> <i>Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</i> Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals </div> </div> <div> <div>SATA DVD</div> <div> <i>Some: DVD-ROM DL SATA 1.5Gb/s 16X-48X Max4 Drive</i> <i>Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</i> Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals </div> </div> <div> <div>SATA DVD±RW</div> <div> <i>Some: DVD-ROM DL SATA 1.5Gb/s 16X-48X Max4 Drive</i> <i>Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</i> Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals </div> </div> <div> <div>Disk controller</div> <div> Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals </div> </div> <div> <div>Chipset</div> <div> Intel X58 Express Chipset, Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O </div> </div> <div> <div>Front ports</div> <div>Two USB 2.0, microphone (3.5mm), headphone (3.5mm)</div> </div> <div> <div>Rear ports</div> <div> Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in <i>Some: FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear</i> High Definition (HD) Audio, Analog Devices AD1988A codec Internal speaker for business audio One gigabit ethernet on planar, Broadcom® BCM5755 Broadcom Trusted Platform Module, TCG 1.2-compliant </div> </div> <div> <div>IEEE 1394 adptr</div> <div> <i>Some: FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear</i> High Definition (HD) Audio, Analog Devices AD1988A codec Internal speaker for business audio One gigabit ethernet on planar, Broadcom® BCM5755 Broadcom Trusted Platform Module, TCG 1.2-compliant </div> </div> <div> <div>Audio</div> <div> High Definition (HD) Audio, Analog Devices AD1988A codec Internal speaker for business audio One gigabit ethernet on planar, Broadcom® BCM5755 Broadcom Trusted Platform Module, TCG 1.2-compliant </div> </div> <div> <div>Speaker</div> <div>Internal speaker for business audio</div> </div> <div> <div>Ethernet</div> <div>One gigabit ethernet on planar, Broadcom® BCM5755</div> </div> <div> <div>Security chip</div> <div>Broadcom Trusted Platform Module, TCG 1.2-compliant</div> </div> <div> <div>Keyboard</div> <div>Preferred Pro USB Keyboard (USB connector), 104-key, black</div> </div> <div> <div>Mouse</div> <div>Optical Wheel Mouse (USB connector), black</div> </div> <div> <div>Power supply</div> <div>625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified</div> </div> <div> <div>Cooling</div> <div>3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])</div> </div> <div> <div>Rack mount</div> <div>Rack shelf support</div> </div> <div> <div>Preloaded operating system²⁰</div> <div> - <i>Some: Genuine Windows® XP Professional 64-bit (preinstalled via downgrade rights in Windows Vista® Business 64-bit)</i> - <i>Some: Genuine Windows Vista Business 32</i> - <i>Some: Genuine Windows Vista Business 64</i> ♦ <i>Vista models: Vista Premium logo</i> </div> </div> <div> <div>Preloaded applications⁵ (all OSes; only some listed)</div> <div> • Rescue and Recovery™ • McAfee® VirusScan® Plus (30 days of virus definitions) • Lenovo® System Toolbox • Corel® WinDVD® (DVD±RW) </div> </div>															
<div> <div>Tower</div> <div> <ul style="list-style-type: none"> • Raven black color; metal case • 6.9"W x 19.0"D x 18.8"H (with handle) • 175mm W x 483mm D x 478mm H • 38.5 lb (17.5kg) max configuration • 31-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support </div> <div> </div> </div> <div> <div>Bay ① 5.25", 1.6" high, external, std optical</div> <div>Bay ② 5.25", 1.6" high, external, open</div> <div>Bay ③ 3.5", 1" high, external, std media reader</div> <div>Bay ④ 3.5", 1" high, internal, std disk</div> <div>Bay ⑤ 3.5", 1" high, internal, std or opt disk</div> <div>Bay ⑥ 3.5", 1" high, internal, opt disk</div> </div> <div> <div>Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max)</div> <div>Slot 2: full-length, full-height, PCIe 2.0 x4**</div> <div>Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max)</div> <div>Slot 4: full-length, full-height, PCIe x1</div> <div>Slot 5: half-length, full-height, 32-bit PCI 2.3</div> </div> <div> <div>** x16 mechanical</div> </div>															
<div> <div>SECURITY</div> <div> <ul style="list-style-type: none"> • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all) </div> </div> <div> <div>Supports ThinkVantage® technologies</div> </div> <div> <div>GREENGUARD® certified</div> <div>RoHS-compliant</div> <div> <i>Some: ENERGY STAR® 5.0-compliant</i> <i>EPEAT™ Gold rating (only for ES5.0 models)</i> </div> </div> <div> <div>LIMITED WARRANTY¹</div> <div> ⇒ 3-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty • Onsite service upgrade options (in eligible locations)⁷ • Post warranty maintenance services ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378 </div> </div>															

See footnotes for important warranty information

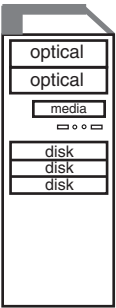
US models announced March 31, 2009

⚡ US models withdrawn effective January 2010 or April 2010

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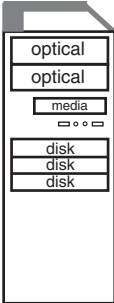
Name	Type-model	Slot x bay	Processor GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	ENERGY STAR 5.0	Win7 preload	Avail date
S20	4157-A1U	5x6	W3503	2.40	2	2x1GB	1333MHz	1x500GB ²	3.5"	No	DVD±RW	Media 1xFX380	None	Pending	Pro64	Oct 09
S20	4157-A2U	5x6	W3520	2.66	4	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media 1xFX1800	None	Pending	Pro64	Oct 09

- **Faster, more efficient architecture with the latest Intel® workstation technology**
- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **Innovative thermal design with optimized fan placement, for a cooler, quieter, more reliable PC**
- **These models have a 3-year limited warranty¹**

Processor	Intel Xeon® Processor W3503 with dual-core, 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 1066MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor W3520 with quad-core, 4.8GT/s QPI, 1066MHz DDR3 memory controller, and 8MB cache		Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 18.8"H (with handle)• 175mm W x 483mm D x 478mm H• 38.5 lb (17.5kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support																								
Implementation	Processor uses FC-LGA8 package, one LGA1366 socket																										
Memory	2GB or 4GB std, 24GB max, UDIMM, PC3-10600 1333MHz DDR3***, ECC , 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 1066MHz DDR3 memory controller																										
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU <i>Some: NVIDIA® Quadro® FX 380</i> , PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some: NVIDIA Quadro FX 1800</i> , PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W **** Only two display connectors are active at a time		Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, opt disk Bay ⑥ 3.5", 1" high, internal, opt disk Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x4** Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 4: full-length, full-height, PCIe x1 Slot 5: half-length, full-height, 32-bit PCI 2.3 ** x16 mechanical																								
Media reader	20-in-1 media reader, internal USB 2.0																										
SATA disk(s)	500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"																										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																										
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals																										
Chipset	Intel X58 Express Chipset , Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O																										
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)		SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)																								
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in																										
IEEE 1394 adptr	None																										
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec																										
Speaker	Internal speaker for business audio																										
Ethernet	One gigabit ethernet on planar, Broadcom® BCM5755																										
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant																										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black																										
Mouse	Optical Wheel Mouse (USB connector), black																										
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified																										
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])																										
Rack mount	Rack shelf support																										
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 64		Accessories <table><tr><td>1GB PC3-8500 DDR3 ECC UDIMM</td><td>51J0503</td></tr><tr><td>2GB PC3-8500 DDR3 ECC UDIMM</td><td>51J0504</td></tr><tr><td>1GB PC3-10600 DDR3 ECC UDIMM</td><td>43R2032</td></tr><tr><td>2GB PC3-10600 DDR3 ECC UDIMM</td><td>43R2033</td></tr><tr><td>4GB PC3-10600 DDR3 ECC UDIMM</td><td>57Y4138</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s</td><td>45K1675</td></tr><tr><td>ThinkVision® L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>NVIDIA Quadro NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro FX 580</td><td>45K1671</td></tr><tr><td>ATI™ FirePro™ 1GB V7750</td><td>51J0511</td></tr></table> Other accessories at lenovo.com/accessories		1GB PC3-8500 DDR3 ECC UDIMM	51J0503	2GB PC3-8500 DDR3 ECC UDIMM	51J0504	1GB PC3-10600 DDR3 ECC UDIMM	43R2032	2GB PC3-10600 DDR3 ECC UDIMM	43R2033	4GB PC3-10600 DDR3 ECC UDIMM	57Y4138	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Blu-ray™ Burner SATA 1.5Gb/s	45K1675	ThinkVision® L2440p Wide 24" Monitor	4420HB2	NVIDIA Quadro NVS 290	43R1765	NVIDIA Quadro FX 580	45K1671	ATI™ FirePro™ 1GB V7750	51J0511		
1GB PC3-8500 DDR3 ECC UDIMM	51J0503																										
2GB PC3-8500 DDR3 ECC UDIMM	51J0504																										
1GB PC3-10600 DDR3 ECC UDIMM	43R2032																										
2GB PC3-10600 DDR3 ECC UDIMM	43R2033																										
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1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																										
Blu-ray™ Burner SATA 1.5Gb/s	45K1675																										
ThinkVision® L2440p Wide 24" Monitor	4420HB2																										
NVIDIA Quadro NVS 290	43R1765																										
NVIDIA Quadro FX 580	45K1671																										
ATI™ FirePro™ 1GB V7750	51J0511																										
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• ThinkVantage System Update• Norton Internet Security™ (30 days of virus definitions)• Adobe® Reader• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)																											

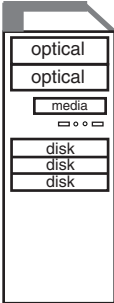
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	ENERGY STAR 5.0	Win7 preload	Avail date
S20	4157-D7U	5x6	E5507	2.26	4	1x2GB	1333MHz	1x500GB ²	3.5"	No	DVD±RW	Media	1xV3700		Pending	Pro64	Mar 10
S20	4157-D8U	5x6	E5507	2.26	4	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX1800	1394	Pending	Pro64	Mar 10
S20	4157-D9U	5x6	W3530	2.80	4	1x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX380	1394	Pending	Pro64	Mar 10
S20	4157-E1U	5x6	W3530	2.80	4	1x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX580	1394	Pending	Pro64	Mar 10

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- **Innovative thermal design with optimized fan placement, for a cooler, quieter, more reliable PC**
- **These models have a 3-year limited warranty¹**

Processor	Intel Xeon® Processor W3530 with quad-core, 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology (up to 3.06GHz at max turbo mode), 1066MHz DDR3 memory controller, and 8MB cache or Intel Xeon Processor E5507 with quad-core, Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache			Tower			
Implementation	Processor uses FC-LGA8 package, one LGA1366 socket			• Raven black color; metal case • 6.9"W x 19.0"D x 18.8"H (with handle) • 175mm W x 483mm D x 478mm H • 38.5 lb (17.5kg) max configuration • 31-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support			
Memory	2GB or 4GB std, 24GB max, UDIMM, PC3-10600 1333MHz DDR3***, ECC, 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller						
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU Some: NVIDIA® Quadro® FX 380, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W Some: NVIDIA Quadro FX 580, PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I****, 40W Some: NVIDIA Quadro FX 1800, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W Some: ATI™ FirePro™ V3700, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W **** Only two display connectors are active at a time			Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, opt disk Bay ⑥ 3.5", 1" high, internal, opt disk Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x4** Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 4: full-length, full-height, PCIe x1 Slot 5: half-length, full-height, 32-bit PCI 2.3 ** x16 mechanical			
Media reader	20-in-1 media reader, internal USB 2.0			SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)			
SATA disk(s)	500GB, SATA 3.0Gb/s, 7200 rpm, 3.5"						
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive						
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals						
Chipset	Intel X58 Express Chipset, Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O			Supports ThinkVantage® technologies			
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)						
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in Some: FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear						
IEEE 1394 adptr	High Definition (HD) Audio, Analog Devices AD1988A codec			GREENGUARD® certified RoHS-compliant Pending: ENERGY STAR® 5.0-compliant			
Audio	Internal speaker for business audio						
Speaker	One gigabit ethernet on planar, Broadcom® BCM5755						
Ethernet	Broadcom Trusted Platform Module, TCG 1.2-compliant			LIMITED WARRANTY¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378			
Security chip	Preferred Pro USB Keyboard (USB connector), 104-key, black						
Keyboard	Optical Wheel Mouse (USB connector), black						
Mouse	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified						
Power supply	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])						
Cooling	Rack shelf support						
Rack mount							
Preloaded operating system²⁰				Accessories			
- Genuine Windows® 7 Professional 64				1GB PC3-10600 DDR3 ECC UDIMM 43R2032			
Preloaded applications⁵ (only some listed)				2GB PC3-10600 DDR3 ECC UDIMM 43R2033			
• Rescue and Recovery™				4GB PC3-10600 DDR3 ECC UDIMM 57Y4138			
• ThinkVantage System Update				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
• Norton Internet Security™ (30 days of virus definitions)				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
• Adobe® Reader®				Blu-ray™ Burner SATA 1.5Gb/s 45K1675			
• Microsoft® Office 2007 Trial (60-day)				ThinkVision® L2440p Wide 24" Monitor 4420HB2			
• Roxio® Creator® Business Edition (DVD±RW)				NVIDIA Quadro NVS 290 43R1765			
• Roxio MyDVD® (DVD±RW)				ATI FirePro 1GB V7750 51J0511			
• Corel® WinDVD® (DVD±RW)				Other accessories at lenovo.com/accessories			

Name	Type-model	Slot x bay	Processor GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	ENERGY STAR 5.0	Preload	Avail date
S20	4157-E3U	5x6	E5640	2.66	4	2x2GB	1333MHz	1x300GB ²	2.5"	No	DVD±RW	Media 1xV7750	1394	Pending	XP Pro	May 10
S20	4157-E4U	5x6	W3550	3.06	4	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media 1xFX1800	1394	Pending	XP Pro	May 10
S20	4157-E5U	5x6	W3680	3.33	6	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media 1xFX3800	1394	Pending	XP Pro	May 10
S20	4157-E7U	5x6	E5503	2.00	2	2x2GB	1333MHz	1x150GB	2.5"	No	DVD±RW	Media 1xFX1800	1394	Pending	XP Pro	May 10
S20	4157-E8U	5x6	E5507	2.26	4	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media 1xFX380		Pending	XP Pro	May 10
S20	4157-E9U	5x6	E5507	2.26	4	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media 1xV5700	1394	Pending	XP Pro	May 10

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- **These models have a 3-year limited warranty¹**

Processor	Intel Xeon® Processor W3550 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, 1066MHz DDR3 memory controller, and 8MB cache or Intel Xeon Processor W3680 with six-core , 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, 1333MHz DDR3 memory controller, and 12MB cache or Intel Xeon Processor E5503 with dual-core , 4.8GT/s QPI, Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5507 with quad-core , 4.8GT/s QPI, Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5640 with quad-core , 5.86GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, 1066MHz DDR3 memory controller, and 12MB cache Processor uses FC-LGA8 package, one LGA1366 socket			Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 18.8"H (with handle)• 175mm W x 483mm D x 478mm H• 38.5 lb (17.5kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support 		
Implementation				Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, opt disk Bay ⑥ 3.5", 1" high, internal, opt disk		
Memory	4GB std, 24GB max, UDIMM, PC3-10600 1333MHz DDR3***, ECC , 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller					
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU <i>Some:</i> NVIDIA® Quadro® FX 380 , PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some:</i> NVIDIA Quadro FX 1800 , PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W <i>Some:</i> NVIDIA Quadro FX 3800 , PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I****, 108W <i>Some:</i> ATI™ FirePro™ V5700 , PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I****, 49W <i>Some:</i> ATI FirePro V7750 , PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I****, 76W **** Only two display connectors are active at a time			Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x4** Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 4: full-length, full-height, PCIe x1 Slot 5: half-length, full-height, 32-bit PCI 2.3 ** x16 mechanical		
Media reader	20-in-1 media reader, internal USB 2.0			SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all) Supports ThinkVantage® technologies		
SATA disk(s)	<i>Some:</i> 500GB , SATA 3.0Gb/s, 7200 rpm, 3.5" <i>Some:</i> 150GB or 300GB , SATA 3.0Gb/s, 10000 rpm, 2.5"					
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals					
Chipset	Intel X58 Express Chipset , Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O					
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)			GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0-compliant		
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in <i>Some:</i> FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear					
IEEE 1394 adptr	High Definition (HD) Audio, Analog Devices AD1988A codec					
Audio	Internal speaker for business audio					
Speaker	One gigabit ethernet on planar, Broadcom® BCM5755			LIMITED WARRANTY¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378		
Ethernet	Broadcom Trusted Platform Module, TCG 1.2-compliant					
Security chip						
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black					
Mouse	Optical Wheel Mouse (USB connector), black					
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified					
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])					
Rack mount	Rack shelf support					
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® XP Professional 32-bit***** (preinstalled via downgrade rights in Windows 7 Professional 64-bit) ***** Only 3GB of memory can be addressable by a 32-bit operating system limitation						

See footnotes for important warranty information
 US models announced May 4, 2010

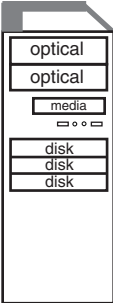
Name	Type-model	Slot x bay	Processor GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-conf RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	ENERGY STAR 5.0	Win7 preload	Global	Avail date	
S20	4157-B1U	5x6	W3520	2.66	4	2x2GB	1066MHz	1x500GB ²	3.5"	No	DVD±RW	No	1xFX1800	Pending	Pro64	Global	Jan 10

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- *This model has a 3-year limited warranty¹*

Processor	Intel Xeon® Processor W3520 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 1066MHz DDR3 memory controller, and 8MB cache		Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 18.8"H (with handle)• 175mm W x 483mm D x 478mm H• 38.5 lb (17.5kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support <div><div>optical</div><div>optical</div><div>media</div><div>disk</div><div>disk</div><div>disk</div></div> <div>Bay ① 5.25", 1.6" high, external, std optical</div> <div>Bay ② 5.25", 1.6" high, external, open</div> <div>Bay ③ 3.5", 1" high, external, std media reader</div> <div>Bay ④ 3.5", 1" high, internal, std disk</div> <div>Bay ⑤ 3.5", 1" high, internal, opt disk</div> <div>Bay ⑥ 3.5", 1" high, internal, opt disk</div> <div>Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max)</div> <div>Slot 2: full-length, full-height, PCIe 2.0 x4**</div> <div>Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max)</div> <div>Slot 4: full-length, full-height, PCIe x1</div> <div>Slot 5: half-length, full-height, 32-bit PCI 2.3</div> <div>** x16 mechanical</div>																																						
Implementation	Processor uses FC-LGA8 package, one LGA1366 socket																																								
Memory	4GB std, 24GB max, UDIMM , PC3-8500 1066MHz DDR3, ECC , 3-channel capable, six 240-pin DIMM sockets																																								
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU NVIDIA® Quadro® FX 1800 , PCI Express® (PCIe) x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I***, 59W *** Only two display connectors are active at a time																																								
Media reader	None																																								
SATA disk(s)	500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"																																								
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																								
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals																																								
Chipset	Intel X58 Express Chipset , Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O																																								
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)																																								
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Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black																																								
Mouse	Optical Wheel Mouse (USB connector), black																																								
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified																																								
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])																																								
Rack mount	Rack shelf support																																								
<table><tr><td>Preloaded operating system²⁰</td><td>Accessories</td><td></td></tr><tr><td>- Genuine Windows® 7 Professional 64</td><td>1GB PC3-8500 DDR3 ECC UDIMM</td><td>51J0503</td></tr><tr><td></td><td>2GB PC3-8500 DDR3 ECC UDIMM</td><td>51J0504</td></tr><tr><td></td><td>1GB PC3-10600 DDR3 ECC UDIMM</td><td>43R2032</td></tr><tr><td></td><td>2GB PC3-10600 DDR3 ECC UDIMM</td><td>43R2033</td></tr><tr><td></td><td>4GB PC3-10600 DDR3 ECC UDIMM</td><td>57Y4138</td></tr><tr><td></td><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td></td><td>Blu-ray™ Burner SATA 1.5Gb/s</td><td>45K1675</td></tr><tr><td></td><td>ThinkVision® L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td></td><td>NVIDIA Quadro NVS 290</td><td>43R1765</td></tr><tr><td></td><td>NVIDIA Quadro FX 580</td><td>45K1671</td></tr><tr><td></td><td>ATI™ FirePro™ 1GB V7750</td><td>51J0511</td></tr><tr><td></td><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>			Preloaded operating system ²⁰	Accessories		- Genuine Windows® 7 Professional 64	1GB PC3-8500 DDR3 ECC UDIMM	51J0503		2GB PC3-8500 DDR3 ECC UDIMM	51J0504		1GB PC3-10600 DDR3 ECC UDIMM	43R2032		2GB PC3-10600 DDR3 ECC UDIMM	43R2033		4GB PC3-10600 DDR3 ECC UDIMM	57Y4138		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918		Blu-ray™ Burner SATA 1.5Gb/s	45K1675		ThinkVision® L2440p Wide 24" Monitor	4420HB2		NVIDIA Quadro NVS 290	43R1765		NVIDIA Quadro FX 580	45K1671		ATI™ FirePro™ 1GB V7750	51J0511		Other accessories at lenovo.com/accessories	
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Name	Type-model	Slot x bay	Processor GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-conf RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	ENERGY STAR 5.0	Preload	Global	Avail date
S20	4157-E6U	5x6	W3530	2.80	4	2x2GB	1333MHz	1x500GB ²	3.5"	No	DVD±RW	Media 1xFX1800	Pending	XP Pro	Global	May 10

- **Faster, more efficient architecture with the latest Intel® workstation technology**
- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **Innovative thermal design with optimized fan placement, for a cooler, quieter, more reliable PC**
- **This model has a 3-year limited warranty¹**

Processor	Intel Xeon® Processor W3530 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, 1066MHz DDR3 memory controller, and 8MB cache		Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 18.8"H (with handle)• 175mm W x 483mm D x 478mm H• 38.5 lb (17.5kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support 
Implementation	Processor uses FC-LGA8 package, one LGA1366 socket		
Memory	4GB std, 24GB max, UDIMM, PC3-10600 1333MHz DDR3***, ECC , 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 1066MHz DDR3 memory controller		
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU NVIDIA® Quadro® FX 1800 , PCI Express® (PCIe) x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W **** Only two display connectors are active at a time		
Media reader	20-in-1 media reader, internal USB 2.0		
SATA disk(s)	500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"		Bay ① 5.25", 1.6" high, external, std optical
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		Bay ② 5.25", 1.6" high, external, open
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals		Bay ③ 3.5", 1" high, external, std media reader
Chipset	Intel X58 Express Chipset , Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O		Bay ④ 3.5", 1" high, internal, std disk
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)		Bay ⑤ 3.5", 1" high, internal, opt disk
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in		Bay ⑥ 3.5", 1" high, internal, opt disk
IEEE 1394 adptr	FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear		Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max)
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec		Slot 2: full-length, full-height, PCIe 2.0 x4**
Speaker	Internal speaker for business audio		Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max)
Ethernet	One gigabit ethernet on planar, Broadcom® BCM5755		Slot 4: full-length, full-height, PCIe x1
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant		Slot 5: half-length, full-height, 32-bit PCI 2.3
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black		** x16 mechanical
Mouse	Optical Wheel Mouse (USB connector), black		
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified		
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])		
Rack mount	Rack shelf support		
Preloaded operating system²⁰		Accessories	
- Genuine Windows® XP Professional 32-bit***** (preinstalled via downgrade rights in Windows 7 Professional 64-bit)		1GB PC3-10600 DDR3 ECC UDIMM	43R2032
		2GB PC3-10600 DDR3 ECC UDIMM	43R2033
		4GB PC3-10600 DDR3 ECC UDIMM	57Y4138
		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
		Blu-ray™ Burner SATA 1.5Gb/s	45K1675
		ThinkVision® L2440p Wide 24" Monitor	4420HB2
		NVIDIA Quadro NVS 290	43R1765
		NVIDIA Quadro FX 580	45K1671
		ATI™ FirePro™ 1GB V7750	51J0511
		Other accessories at lenovo.com/accessories	
***** Only 3GB of memory can be addressable by a 32-bit operating system limitation			
Preloaded applications⁵ (all OSes; only some listed)			
• Rescue and Recovery™			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• Adobe® Reader			
• Microsoft Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD±RW)			
			SECURITY
			<ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)
			Supports ThinkVantage® technologies
			GREENGUARD® certified RoHS-compliant Pending: ENERGY STAR® 5.0-compliant
			LIMITED WARRANTY¹
			⇒ 3-year parts and labor
			⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
			⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty
			• Onsite service upgrade options (in eligible locations)⁷
			• Post warranty maintenance services
			⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378

ThinkStation.



Lenovo ThinkStation D20



Lenovo ThinkStation S20 (left)
Lenovo ThinkStation D20 (right)



Lenovo ThinkStation D20



Lenovo ThinkStation D20
with Lenovo ThinkVision L2440 Monitor



Lenovo ThinkStation Graphics Card Option
NVIDIA® Quadro® 1.5GB FX 4800 (45K1674)



Lenovo ThinkStation Graphics Card Option
ATI™ FirePro™ 1GB V7750 (51J0511)

ThinkStation® D20 (4155) - TopSeller (UDIMM) - Windows 7

Personal Systems Reference (PSREF)

Type- Name	Slot x bay	Processor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	ENERGY STAR	Win7 5.0 preload	Avail date
D20 4155-68U	6x9	1xE5520	2.26	4	2x2GB	1333MHz	1x500GB ²	SATA 3.5"	No	DVD±RW	Media	1xFX580	No	Pending	Pro64	Oct 09

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- **This model has a 3-year limited warranty¹**

Processor	Up to two processors, one processor standard, Intel Xeon® Processor E5520 with quad-core , 5.86GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 1066MHz DDR3 memory controller, and 8MB cache			Tower <ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 19.1"H (with handle)• 210mm W x 602mm D x 485mm H• 60 lb (27.1kg) max configuration• 55-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support or optional rail kit <div><div>optical</div><div>optical</div><div>optical</div><div>media</div><div>disk</div><div>disk</div><div>disk</div><div>disk</div></div>																					
Implementation	Processor uses FC-LGA8 package, two LGA1366 sockets																								
Memory	4GB std, 48GB max, UDIMM, PC3-10600 1333MHz DDR3** , ECC , 6-channel capable (3-channel per processor), twelve 240-pin DIMM sockets*** ** System automatically clocks down for processors with 1066MHz DDR3 memory controller *** Over six DIMMs requires dual processors																								
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU NVIDIA® Quadro® FX 580 , PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I****, 40W **** Only two display connectors are active at a time																								
Diskette drive	None																								
Media reader	20-in-1 media reader																								
SATA disk(s)	500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"																								
SAS disk(s)	None																								
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s																								
Disk Controller	3 SATA connectors for opticals, SATA 3.0Gb/s, integrated in ICH10; 5 SATA/SAS ⁴ connectors for disks, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID ⁵ 0, 1, 5, 10, integrated in Marvell® 88SE6480																								
Chipset	Intel 5520 Chipset , Intel ICH10, Winbond® W83627DHG-P Super I/O																								
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394a)																								
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), two ethernet (RJ-45), FireWire 400 (IEEE 1394a), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side out), Optical SPDIF digital out, Optical SPDIF digital in																								
IEEE 1394 adptr	None																								
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec																								
Speaker	Internal speaker for business audio																								
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5755 and BCM5754																								
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant																								
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black																								
Mouse	Optical Wheel Mouse (USB connector), black																								
Power supply	1060 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified																								
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)																								
Rack mount	Rack shelf support or optional sliding rack mount rail kit support																								
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 64 Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• ThinkVantage System Update• Norton Internet Security™ (30 days of virus definitions)• Adobe® Reader• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)																									
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See footnotes for important warranty information
US model announced October 22, 2009

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- **These models have a 3-year limited warranty¹**

See footnotes for important warranty information
US models announced March 16, 2010

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Name	Type-model	Slot x bay	Processor(s) GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	Win7 preload	Avail date
D20 4158-A9U	6x9	1xE5503	2.00	2	2x1GB	1333MHz	1x500GB ²	SATA 3.5"	No	DVD±RW	Media	1xNVS295	1394	Pro64	Mar 10
D20 4158-B1U	6x9	1xE5507	2.26	4	2x2GB	1333MHz	1x300GB	SAS 3.5"	No	DVD±RW	Media	1xFX1800	1394	Pro64	Mar 10

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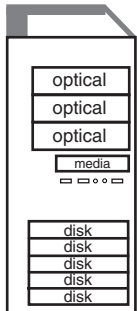
Processor	Up to two processors, one processor standard, Intel Xeon® Processor E5503 with dual-core , Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5507 with quad-core , Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache			Tower <ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 19.1"H (with handle)• 210mm W x 602mm D x 485mm H• 60 lb (27.1kg) max configuration• 55-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support or optional rail kit <div><div>optical</div><div>optical</div><div>optical</div><div>media</div><div>disk</div><div>disk</div><div>disk</div><div>disk</div></div>
Implementation	Processor uses FC-LGA8 package, two LGA1366 sockets			
Memory	2GB or 4GB std, 48GB max, UDIMM , PC3-10600 1333MHz DDR3** , ECC , 6-channel capable (3-channel per processor), twelve 240-pin DIMM sockets*** ** System automatically clocks down for processors with 800MHz DDR3 memory controller *** Over six DIMMs requires dual processors			
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU <i>Some:</i> NVIDIA® Quadro® NVS 295 , PCIe x16 adapter, 256MB, two DisplayPort, 23W <i>Some:</i> NVIDIA Quadro FX 1800 , PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W **** Only two display connectors are active at a time			
Diskette drive	None (use USB port)			Bay ① 5.25", 1.6" high, external, std optical
Media reader	20-in-1 media reader			Bay ② 5.25", 1.6" high, external, open
SATA disk(s)	<i>Some:</i> 500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"			Bay ③ 5.25", 1.6" high, external, open
SAS disk(s)	<i>Some:</i> 300GB , SAS 3.0Gb/s, 15000 rpm			Bay ④ 3.5", 1" high, external, std media reader
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s			Bay ⑤ 3.5", 1" high, internal, std disk
Disk Controller	3 SATA connectors for opticals, SATA 3.0Gb/s, integrated in ICH10; 5 SATA/SAS ⁴ connectors for disks, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID ⁵ 0, 1, 5, 10, integrated in Marvell® 88SE6480			Bay ⑥ 3.5", 1" high, internal, opt disk
Chipset	Intel 5520 Chipset , Intel ICH10, Winbond® W83627DHG-P Super I/O			Bay ⑦ 3.5", 1" high, internal, opt disk
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394a)			Bay ⑧ 3.5", 1" high, internal, opt disk
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), two ethernet (RJ-45), FireWire 400 (IEEE 1394a), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side out), Optical SPDIF digital out, Optical SPDIF digital in			Bay ⑨ 3.5", 1" high, internal, opt disk
IEEE 1394 adptr	FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear			Slot 1: half-length, full-height, PCIe x1
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec			Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max)
Speaker	Internal speaker for business audio			Slot 3: full-length, full-height, 32-bit PCI 2.3
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5755 and BCM5754			Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max)
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant			Slot 5: full-length, full-height, PCIe x4 (x16 mechanical)
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			Slot 6: half-length, full-height, 32-bit PCI 2.3
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	1060 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified			
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)			
Rack mount	Rack shelf support or optional sliding rack mount rail kit support			
Preloaded operating system ²⁰				SECURITY
- Genuine Windows® 7 Professional 64				<ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• ThinkVantage System Update• Norton Internet Security™ (30 days of virus definitions)• Adobe® Reader• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)				Supports ThinkVantage® technologies
Accessories				GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0-compliant
1GB PC3-8500 DDR3 ECC UDIMM				
2GB PC3-8500 DDR3 ECC UDIMM				
1GB PC3-10600 DDR3 ECC UDIMM				51J0503
2GB PC3-10600 DDR3 ECC UDIMM				51J0504
4GB PC3-10600 DDR3 ECC UDIMM				43R2032
500GB SATA 3.0Gb/s Disk (7200 rpm)				43R2033
1TB SATA 3.0Gb/s Disk (7200 rpm)				57Y4138
Blu-ray™ Burner SATA 1.5Gb/s				43R1990
ThinkVision® L2440p Wide 24" Monitor				45J7918
ATI™ FirePro™ 1GB V7750				45K1675
Other accessories at lenovo.com/accessories				4420HB2
				51J0511
				</

ThinkStation® D20 (4158) - Intel Xeon Processor 5600 Series

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor(s)	Base GHz	Max GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	Global	Avail date
4158-B2U	6x9	1xE5620	2.40	2.66	4	2x2GB	1333MHz	1x500GB ² SATA	3.5"	No	DVD±RW	Media	1xFX580	1394		Mar 10
4158-B3U	6x9	1xE5630	2.53	2.80	4	2x2GB	1333MHz	1x500GB SATA	3.5"	No	DVD±RW	Media	1xFX1800	1394		Mar 10
4158-B4U	6x9	1xE5640	2.66	2.93	4	2x2GB	1333MHz	1x300GB SAS	3.5"	No	DVD±RW	Media	1xFX1800	1394		Mar 10
4158-B5U	6x9	1xX5650	2.66	3.06	6	2x2GB	1333MHz	1x500GB SATA	3.5"	No	DVD±RW	Media	1xFX380	1394		Mar 10
4158-B6U	6x9	1xX5660	2.80	3.20	6	2x2GB	1333MHz	1x300GB SAS	3.5"	No	DVD±RW	Media	1xFX4800	1394		Mar 10
4158-B8U	6x9	1xE5640	2.66	2.93	4	2x2GB	1333MHz	1x500GB SATA	3.5"	No	DVD±RW	Media	1xFX1800	1394	Global	May 10

- **Faster, more efficient architecture with the latest Intel® workstation technology**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These models have a 3-year limited warranty¹**

Processor	Up to two processors, one processor standard, Intel Xeon® Processor E5620, E5630, and E5640 with quad-core , 5.86GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 12MB cache or Intel Xeon® Processor X5650 and X5660 with six-core , 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache		Tower <ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 19.1"H (with handle)• 210mm W x 602mm D x 485mm H• 60 lb (27.1kg) max configuration• 55-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support or optional rail kit 	
Implementation	Processor uses FC-LGA8 package, two LGA1366 sockets			
Memory	4GB std, 48GB max, UDIMM, PC3-10600 1333MHz DDR3** , ECC , 6-channel capable (3-channel per processor), twelve 240-pin DIMM sockets*** ** System automatically clocks down for processors with 1066MHz DDR3 memory controller *** Over six DIMMs requires dual processors			
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU <i>Some: NVIDIA® Quadro® FX 380</i> , PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some: NVIDIA Quadro FX 580</i> , PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I****, 40W <i>Some: NVIDIA Quadro FX 1800</i> , PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W <i>Some: NVIDIA Quadro FX 4800</i> , PCIe x16 adapter, 1.5GB, two slot width, two DisplayPort, one dual-link DVI-I****, 121W **** Only two display connectors are active at a time		Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 5.25", 1.6" high, external, open Bay ④ 3.5", 1" high, external, std media reader Bay ⑤ 3.5", 1" high, internal, std disk Bay ⑥ 3.5", 1" high, internal, opt disk Bay ⑦ 3.5", 1" high, internal, opt disk Bay ⑧ 3.5", 1" high, internal, opt disk Bay ⑨ 3.5", 1" high, internal, opt disk Slot 1: half-length, full-height, PCIe x1 Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, 32-bit PCI 2.3 Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, PCIe x4 (x16 mechanical) Slot 6: half-length, full-height, 32-bit PCI 2.3	
Diskette drive	None (use USB port)		SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all) Supports ThinkVantage® technologies	
Media reader	20-in-1 media reader			
SATA disk(s)	<i>Some: 500GB</i> , SATA 3.0Gb/s, 7200 rpm, 3.5"			
SAS disk(s)	<i>Some: 300GB</i> , SAS 3.0Gb/s, 15000 rpm			
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s			
Disk Controller	3 SATA connectors for opticals, SATA 3.0Gb/s, integrated in ICH10; 5 SATA/SAS ⁴ connectors for disks, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID ⁵ 0, 1, 5, 10, integrated in Marvell® 88SE6480			
Chipset	Intel 5520 Chipset , Intel ICH10, Winbond® W83627DHG-P Super I/O			
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394a)			
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), two ethernet (RJ-45), FireWire 400 (IEEE 1394a), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side out), Optical SPDIF digital out, Optical SPDIF digital in			
IEEE 1394 adptr	FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear			
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec			
Speaker	Internal speaker for business audio			
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5755 and BCM5754			
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black		GREENGUARD® certified RoHS-compliant <i>Pending: ENERGY STAR® 5.0-compliant</i>	
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	1060 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified			
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)			
Rack mount	Rack shelf support or optional sliding rack mount rail kit support			
Preloaded operating system²⁰		Accessories		LIMITED WARRANTY¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
- Genuine Windows® 7 Professional 64		2GB PC3-10600 DDR3 ECC UDIMM 43R2033		
		4GB PC3-10600 DDR3 ECC UDIMM 57Y4138		
Preloaded applications⁵ (only some listed)		500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
• Rescue and Recovery™		Blu-ray™ Burner SATA 1.5Gb/s 45K1675		
• ThinkVantage System Update		NVIDIA Quadro FX 4800 45K1674		
		Other accessories at lenovo.com/accessories		

See footnotes for important warranty information
US model announced May 4, 2010; previous models on March 16, 2010

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Personal Systems Reference (PSREF)

- *Faster, more efficient architecture with the latest Intel® workstation technology*
- *High performance workstation with premium graphics for specialized professionals*
- *Environmentally friendly, cool, and quiet with rock solid engineering*
- *Innovative thermal design with optimized fan placement, for a cooler, quieter, more reliable PC*
- *This model has a 3-year limited warranty¹*

optical

optical

optical

media

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disk

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disk

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-conf RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	ENERGY STAR 5.0	Win7 preload	Global	Avail date
D20	4158-87U	6x9	1xE5540	2.53	4	2x2GB	1066MHz	1x500GB ²	SATA 3.5"	No	DVD±RW	No	1xFX1800	Pending	Pro64	Global	Jan 10

- **Faster, more efficient architecture with the latest Intel® workstation technology**
- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **Innovative thermal design with optimized fan placement, for a cooler, quieter, more reliable PC**
- **This model has a 3-year limited warranty¹**

Processor	Up to two processors, one processor standard, Intel Xeon® Processor E5540 with quad-core , 5.86GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 1066MHz DDR3 memory controller, and 8MB cache			Tower <ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 19.1"H (with handle)• 210mm W x 602mm D x 485mm H• 60 lb (27.1kg) max configuration• 55-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support or optional rail kit <div><div>optical</div><div>optical</div><div>optical</div><div>media</div><div>disk</div><div>disk</div><div>disk</div><div>disk</div><div>disk</div></div>
Implementation	Processor uses FC-LGA8 package, two LGA1366 sockets			
Memory	4GB std, 48GB max, UDIMM, PC3-8500 1066MHz DDR3, ECC , 6-channel capable (3-channel per processor), twelve 240-pin DIMM sockets** ** Over six DIMMs requires dual processors			
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU NVIDIA® Quadro® FX 1800 , PCI Express® (PCIe) x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I***, 59W *** Only two display connectors are active at a time			
Diskette drive	None			Bay ① 5.25", 1.6" high, external, std optical
Media reader	None			Bay ② 5.25", 1.6" high, external, open
SATA disk(s)	500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"			Bay ③ 5.25", 1.6" high, external, open
SAS disk(s)	None			Bay ④ 3.5", 1" high, external, std media reader
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s			Bay ⑤ 3.5", 1" high, internal, std disk
Disk Controller	3 SATA connectors for opticals, SATA 3.0Gb/s, integrated in ICH10; 5 SATA/SAS ⁴ connectors for disks, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID ⁵ 0, 1, 5, 10, integrated in Marvell® 88SE6480			Bay ⑥ 3.5", 1" high, internal, opt disk
Chipset	Intel 5520 Chipset , Intel ICH10, Winbond® W83627DHG-P Super I/O			Bay ⑦ 3.5", 1" high, internal, opt disk
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394a)			Bay ⑧ 3.5", 1" high, internal, opt disk
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), two ethernet (RJ-45), FireWire 400 (IEEE 1394a), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side out), Optical SPDIF digital out, Optical SPDIF digital in			Bay ⑨ 3.5", 1" high, internal, opt disk
IEEE 1394 adptr	None			Slot 1: half-length, full-height, PCIe x1
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec			Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max)
Speaker	Internal speaker for business audio			Slot 3: full-length, full-height, 32-bit PCI 2.3
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5755 and BCM5754			Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max)
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant			Slot 5: full-length, full-height, PCIe x4 (x16 mechanical)
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			Slot 6: half-length, full-height, 32-bit PCI 2.3
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	1060 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified			
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)			
Rack mount	Rack shelf support or optional sliding rack mount rail kit support			
Supports ThinkVantage® technologies				
Preloaded operating system ²⁰		Accessories		
- Genuine Windows® 7 Professional 64		1GB PC3-8500 DDR3 ECC UDIMM	51J0503	
		2GB PC3-8500 DDR3 ECC UDIMM	51J0504	
Preloaded applications ⁵ (only some listed)		1GB PC3-10600 DDR3 ECC UDIMM	43R2032	
• Rescue and Recovery™		2GB PC3-10600 DDR3 ECC UDIMM	43R2033	
• ThinkVantage System Update		4GB PC3-10600 DDR3 ECC UDIMM	57Y4138	
• Norton Internet Security™ (30 days of virus definitions)		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• Adobe® Reader		Blu-ray™ Burner SATA 1.5Gb/s	45K1675	
• Microsoft® Office 2007 Trial (60-day)		NVIDIA Quadro NVS 290	43R1765	
• Roxio® Creator® Business Edition (DVD±RW)		NVIDIA Quadro FX 580	45K1671	
• Roxio MyDVD® (DVD±RW)		ATI™ FirePro™ 1GB V7750	51J0511	
• Corel® WinDVD® (DVD±RW)		Other accessories at lenovo.com/accessories		
SECURITY				
<ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)				
GREENGUARD® certified				
RoHS-compliant				
<i>Pending: ENERGY STAR® 5.0-compliant</i>				
LIMITED WARRANTY ¹				
⇒ 3-year parts and labor				
⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)				
⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty				
• Onsite service upgrade options (in eligible locations) ⁷				
• Post warranty maintenance services				
⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378				

Memory Loading Notes on ThinkStation S20

System memory speed on ThinkStation D20 will be determined by a number of factors, including the microprocessor model and the type, speed, size (capacity), and number of DIMMs installed. Refer to the following table for information on the supported system memory speed for your ThinkStation model.

- ThinkStation S20 has six memory slots
- Memory controller is integrated in processor
- ThinkStation S20 has one processor slot
- ThinkStation S20 supports UDIMM only

Memory Speed Table for ThinkStation S20

DIMM Type and Speed	PC3-10600 UDIMM (1GB, 2GB, 4GB)		PC3-8500 UDIMM (1GB, 2GB)
Amount of DIMMs installed	1 to 3	4 to 6	1 to 6
CPU Model	Actual Memory Speed		
Intel® Xeon® E5502	800MHz	800MHz	800MHz
Intel Xeon E5503	800MHz	800MHz	800MHz
Intel Xeon E5504	800MHz	800MHz	800MHz
Intel Xeon E5506	800MHz	800MHz	800MHz
Intel Xeon E5507	800MHz	800MHz	800MHz
Intel Xeon E5520	1066MHz	1066MHz	1066MHz
Intel Xeon E5530	1066MHz	1066MHz	1066MHz
Intel Xeon E5540	1066MHz	1066MHz	1066MHz
Intel Xeon E5620	1066MHz	1066MHz	1066MHz
Intel Xeon E5630	1066MHz	1066MHz	1066MHz
Intel Xeon E5640	1066MHz	1066MHz	1066MHz
Intel Xeon X5550	1333MHz	1066MHz	1066MHz
Intel Xeon X5560	1333MHz	1066MHz	1066MHz
Intel Xeon X5570	1333MHz	1066MHz	1066MHz
Intel Xeon X5650	1333MHz	1333MHz	1066MHz
Intel Xeon X5660	1333MHz	1333MHz	1066MHz
Intel Xeon X5667	1333MHz	1333MHz	1066MHz
Intel Xeon X5670	1333MHz	1333MHz	1066MHz
Intel Xeon X5677	1333MHz	1333MHz	1066MHz
Intel Xeon X5680	1333MHz	1333MHz	1066MHz
Intel Xeon W3503	1066MHz	1066MHz	1066MHz
Intel Xeon W3505	1066MHz	1066MHz	1066MHz
Intel Xeon W3520	1066MHz	1066MHz	1066MHz
Intel Xeon W3530	1066MHz	1066MHz	1066MHz
Intel Xeon W3540	1066MHz	1066MHz	1066MHz
Intel Xeon W3550	1066MHz	1066MHz	1066MHz
Intel Xeon W3565	1066MHz	1066MHz	1066MHz
Intel Xeon W3570	1333MHz	1066MHz	1066MHz
Intel Xeon W3580	1333MHz	1066MHz	1066MHz
Intel Xeon W3680	1333MHz	1066MHz	1066MHz
Intel Xeon W5580	1333MHz	1066MHz	1066MHz
Intel Xeon W5590	1333MHz	1066MHz	1066MHz

For more information on ThinkStation S20 processor and memory accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/thinkstationaccessories

Memory Loading Notes on ThinkStation D20

System memory speed on ThinkStation D20 will be determined by a number of factors, including the microprocessor model and the type, speed, size (capacity), and number of DIMMs installed. Refer to the following table for information on the supported system memory speed for your ThinkStation model.

- ThinkStation D20 has twelve memory slots; divided into two sets of 6-DIMM memory slots
- Memory controller is integrated in processor
- ThinkStation D20 has 2 processor slots, each processor control six DIMMs
- Over six DIMMs requires dual processor
- ThinkStation D20 supports UDIMM and RDIMM, mixing of UDIMM and RDIMM is not supported

Memory Speed Table for ThinkStation D20

DIMM Type and Speed	PC3-10600 UDIMM (1GB, 2GB, 4GB)		PC3-8500 UDIMM (1GB, 2GB)	PC3-10600 RDIMM (2GB, 4GB, 8GB)		PC3-8500 RDIMM (1GB, 2GB, 4GB)	PC3-8500 RDIMM (8GB)	
Amount of DIMMs installed per CPU bank	1 to 3	4 to 6	1 to 6	1 to 3	4 to 6	1 to 6	1 to 3	4 to 6
CPU Model	Actual Memory Speed							
Intel® Xeon® E5502	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz
Intel Xeon E5503	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz
Intel Xeon E5504	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz
Intel Xeon E5506	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz
Intel Xeon E5507	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz	800MHz
Intel Xeon E5520	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	800MHz
Intel Xeon E5530	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	800MHz
Intel Xeon E5540	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	800MHz
Intel Xeon E5620	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	800MHz
Intel Xeon E5630	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	800MHz
Intel Xeon E5640	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	1066MHz	800MHz
Intel Xeon X5550	1333MHz	1066MHz	1066MHz	1333MHz	1066MHz	1066MHz	1066MHz	800MHz
Intel Xeon X5560	1333MHz	1066MHz	1066MHz	1333MHz	1066MHz	1066MHz	1066MHz	800MHz
Intel Xeon X5570	1333MHz	1066MHz	1066MHz	1333MHz	1066MHz	1066MHz	1066MHz	800MHz
Intel Xeon X5650	1333MHz	1333MHz	1066MHz	1333MHz	1333MHz	1066MHz	1066MHz	800MHz
Intel Xeon X5660	1333MHz	1333MHz	1066MHz	1333MHz	1333MHz	1066MHz	1066MHz	800MHz
Intel Xeon X5667	1333MHz	1333MHz	1066MHz	1333MHz	1333MHz	1066MHz	1066MHz	800MHz
Intel Xeon X5670	1333MHz	1333MHz	1066MHz	1333MHz	1333MHz	1066MHz	1066MHz	800MHz
Intel Xeon X5677	1333MHz	1333MHz	1066MHz	1333MHz	1333MHz	1066MHz	1066MHz	800MHz
Intel Xeon X5680	1333MHz	1333MHz	1066MHz	1333MHz	1333MHz	1066MHz	1066MHz	800MHz
Intel Xeon W5580	1333MHz	1066MHz	1066MHz	1333MHz	1333MHz	1066MHz	1066MHz	800MHz
Intel Xeon W5590	1333MHz	1066MHz	1066MHz	1333MHz	1066MHz	1066MHz	1066MHz	800MHz

For more information on ThinkStation D20 processor and memory accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/thinkstationaccessories

Partial list of accessories supported on ThinkStation S20 and D20

Processors⁵⁵

D20:

Intel® Xeon® Quad-Core Processor E5506	57Y4399	ann	10/27/09
Intel Xeon Quad-Core Processor E5520	43R2038	ann	04/21/09
Intel Xeon Quad-Core Processor E5530	43R2039	ann	04/21/09
Intel Xeon Quad-Core Processor E5540	43R2040	ann	04/21/09
Intel Xeon Quad-Core Processor X5550	43R2042	ann	04/21/09
Intel Xeon Quad-Core Processor X5560	43R2043	ann	04/21/09

⁵⁵ Additional Processor must match the existing processorMemory⁵³

All:

1GB PC3-8500 DDR3 ECC UDIMM	51J0503	ann	03/31/09
2GB PC3-8500 DDR3 ECC UDIMM	51J0504	ann	03/31/09
1GB PC3-10600 DDR3 ECC UDIMM ⁵⁴	43R2032	ann	03/31/09
2GB PC3-10600 DDR3 ECC UDIMM ⁵⁴	43R2033	ann	03/31/09
4GB PC3-10600 DDR3 ECC UDIMM ⁵⁴	57Y4138	ann	08/04/09

D20:

1GB PC3-8500 DDR3 ECC RDIMM	43R2034	ann	04/21/09
2GB PC3-8500 DDR3 ECC RDIMM	43R2035	ann	04/21/09
4GB PC3-8500 DDR3 ECC RDIMM	43R2036	ann	04/21/09
8GB PC3-8500 DDR3 ECC RDIMM	43R2037	ann	04/21/09
2GB PC3-10600 DDR3 ECC RDIMM ⁵⁴	57Y4425	ann	04/13/10
4GB PC3-10600 DDR3 ECC RDIMM ⁵⁴	57Y4426	ann	04/13/10
8GB PC3-10600 DDR3 ECC RDIMM ⁵⁴	57Y4427	ann	04/13/10

⁵³ Mixing of UDIMM and RDIMM is not support⁵⁴ Actual memory operating speed is the lowest installed speed, dependent on processor memory bus speed and PC3-8500 / PC3-10600 installed configuration

More information on memory and processor configuration, operation and limitation, please visit:

www.lenovo.com/support/thinkstationaccessories

Optical

DVD-ROM DL SATA1.5Gb/s 16X-48X Max ⁴	41N5618	ann	09/26/06
Super Multi-Burner DL DVD±RW SATA1.5Gb/s	41N5620	ann	09/26/06
Blu-ray™ Burner SATA1.5Gb/s	45K1675	ann	03/31/09

Storage and removable storage

S20, D20 preconfigured with SATA disks:

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann	05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann	01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann	11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann	08/19/08
150GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2030	ann	03/31/09
300GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2031	ann	03/31/09

S20 preconfigured with SAS disks and the SAS controller,

D20 preconfigured with SAS disks:

300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994	ann	03/11/08
450GB SAS 3.0Gb/s Disk (15000 rpm)	43N3424	ann	02/02/10

All:

USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08

All:

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08

Keyboard

Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Lenovo USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09

More information at www.lenovo.com/support/keyboards

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann	11/25/08

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.More information at www.lenovo.com/support/mice

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

More information at www.lenovo.com/thinkvisionMonitor accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories

Graphics

DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann	08/05/08
ATI™ FirePro™ 256MB V3700	51J0509	ann	03/31/09
ATI FirePro 512MB V5700	51J0510	ann	03/31/09
ATI FirePro 1GB V7750	51J0511	ann	03/31/09
NVIDIA® Quadro® 256MB NVS 290	43R1765	ann	12/18/07
NVIDIA Quadro 256MB NVS 295	45K1669	ann	04/21/09
NVIDIA Quadro 512MB NVS 450	57Y4398	ann	01/19/10
NVIDIA Quadro 256MB FX 380	45K1670	ann	03/31/09
NVIDIA Quadro 512MB FX 580	45K1671	ann	03/31/09
NVIDIA Quadro 768MB FX 1800	45K1672	ann	03/31/09
NVIDIA Quadro 1GB FX 3800	45K1673	ann	04/21/09
NVIDIA Quadro 1.5GB FX 4800	45K1674	ann	03/31/09

⁵⁰ Attaches to selected DisplayPort graphics cards.

D20:

NVIDIA SLI Connector with FX 4800	55Y8963	ann	03/31/09
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More information at www.lenovo.com/support/graphiccards

Security

Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Rack mount accessories

D20:

ThinkStation Rail Kit	43R1964	ann	03/11/08
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More information at www.lenovo.com/support/railkit

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann	01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann	01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann	01/31/07

For more information on ThinkStation accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/thinkstationaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

**Partial list of Lenovo® ThinkPlus Services⁷
for ThinkStation workstations**

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html**ThinkPlus service upgrade options*****ThinkStation workstation with 3-year Onsite warranty****LOR = Lenovo Onsite Repair*

4-year LOR 9x5 Next Business Day	43R8983
5-year LOR 9x5 Next Business Day	43R8987

ThinkPlus Secure Business***Lenovo Online Data Backup***

- Secure offsite data storage
- 256-bit Advanced Encryption System
- Data recovery or access in case of an unforeseen event
- Automatic, remote management
- Choose which business critical data to back up

1-year Lenovo Online Data Backup - <i>50GB</i>	45K5849
1-year Lenovo Online Data Backup - <i>Unlimited</i>	45K5870

ThinkPlus Priority Support for enterprise customers

- 9x5 next-business-day response Lenovo Onsite Repair
- 24x7 support with priority routing and advanced level technicians

ThinkStation workstation with 1-year Onsite warranty

3-year Priority Support	45J9080
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ThinkStation workstation with 3-year Onsite warranty

3-year Priority Support	45J9081
4-year Priority Support	45J9082
5-year Priority Support	45J9083
3-year Priority Support 4-hour response	45J9084
4-year Priority Support 4-hour response	45J9085
5-year Priority Support 4-hour response	45J9086

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC, 27709, Attn: Dept ZPYA/B600. Lenovo makes no representation or warranty regarding third party products or services.

¹ **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

² **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less.

³ **Systems with limited onsite service** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges.

⁴ **SATA/SAS:** The system configuration supports the installation of either SATA or SAS disks. A configuration including both SATA and SAS disks is not supported.

⁵ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. License agreements may apply.

⁶ **Multi-Burner Plus** (part number 73P3305 or 73P3370) is a DVD±RW device that reads and writes to DVD-RAM, DVD-R, DVD-RW, DVD+R, and DVD+RW. It also reads and writes to CD-R and CD-RW media. 73P3370 also writes to DVD+R double layer media.

⁷ **ThinkPlus Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

⁸ **RAID:** Supported RAID levels for a system will vary from the stated capabilities of the RAID controller due to dependencies on the number and capacity of physical disks in the system and on customer requirements for performance, fault tolerance, or data redundancy.

RAID levels and requirements:

- **RAID 0 (striping)** provides increased performance by writing data across multiple drives.
- **RAID 1 (mirroring)** provides fault tolerance by writing the data on two drives.
- **RAID 5 (striping with parity)** uses distributed parity data to provide fault tolerance more efficiently than RAID 1. Requires three or more drives.
- **RAID 10 (or RAID 1+0)** combines RAID 1 and RAID 0 to create a stripe of mirrors that is fault tolerant while offering increased performance. Requires four drives.

⁹ **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

¹⁴ **Response times may vary.** May exclude some holidays. Telephone support may be subject to additional charges.

²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.

ThinkStation

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Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

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Morrisville, NC 27560
U.S.A.

May 2010
tsbook.pdf



Personal Systems Reference Lenovo® ThinkServer™ Servers

April 2010 - Version 376



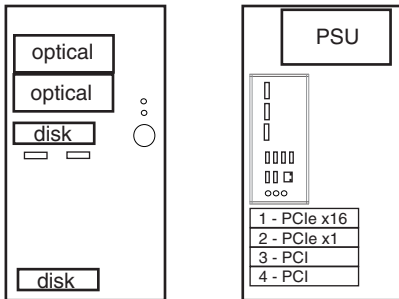
Lenovo ThinkServer 200 Series Family

Visit www.lenovo.com/psref for the latest version



Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	ECC memory	Disk(s)	Disk size	Pre-conf RAID	Disk bays	SATA optical	Windows Server preload	Power supply(s)	Avail date
0981-11U	4x4	G1101	2.26	2	1x1GB	1333MHz	ECC	1x250GB ²	3.5"		2xDirect Cable	DVD		280W	Mar 10
0981-12U	4x4	G6950	2.80	2	1x2GB	1333MHz	ECC	1x250GB	3.5"		2xDirect Cable	DVD		280W	Mar 10
0981-18U	4x4	i5-650	3.20	2	1x2GB	1333MHz	ECC	2x250GB	3.5"	1	2xDirect Cable	DVD	2008 Foundations	280W	Mar 10
0981-19U	4x4	i5-650	3.20	2	1x2GB	1333MHz	ECC	1x500GB	3.5"		2xDirect Cable	DVD±RW		280W	Mar 10
0981-1AU	4x4	G6950	2.80	2	1x2GB	1333MHz	ECC	2x250GB	3.5"	1	2xDirect Cable	DVD	2008 Foundations	280W	Mar 10

- **Real server class dependability at desktop price point**
- **Ideal entry single-socket tower server for growing enterprises, corporate branch offices and Managed Service Providers**
- **These models have a 1-year limited warranty¹**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor	Intel® Celeron® Processor G1101* with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, and 2MB cache or Intel Pentium® Processor G6950 with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, and 3MB cache or Intel Core™ i5 Processor i5-650 with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology (up to 3.46GHz at max turbo mode), Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache * Intel Celeron Processor G1101 is not recommended for applications requiring more than 5 clients or high web volume Processor in LGA1156 socket, up to one processor		Tower 	
Implementation			<ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 16.0"D x 14.9"H• 175mm W x 407mm D x 377mm H• 24.7 lb (11.2kg) max configuration• 25-liter• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons	
Memory	1GB or 2GB std, 16GB max, UDIMM, PC3-10600 1333MHz DDR3** , ECC, four 240-pin DIMM sockets ** System automatically clocks down for processors with 1066MHz DDR3 memory controller			
Graphics	Intel HD Graphics in processor, one analog VGA DB-15 connector, one DisplayPort™ connector; <i>Maximum resolution: 1280x1024@75Hz</i>			
Disk bays	Two 3.5" SATA disk bays, no hot-swap, direct cable			
SATA disk(s)	250GB or 500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID 0, 1 support, two SATA connectors for disks, two SATA connectors for opticals			
Chipset	Intel 3450 Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB		Disk Bays Bay 1 5.25", 1.6" high, external, std optical Bay 2 5.25", 1.6" high, external, optional optical Bay 3 3.5", 1" high, external, std disk Bay 4 3.5", 1" high, external, std or opt disk	
Front ports	Two USB 2.0			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), external monitor (VGA DB-15, DisplayPort), three analog audio ports (line-in, line-out, mic-in)		Expansion Slots Slot 1: half-length, full-height, PCI Express 2.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI Slot 4: half-length, full-height, 32-bit PCI	
Ethernet	One gigabit ethernet on planar, Intel 82578DM			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant			
Diagnostics	Two system status LEDs on front panel (disk drive activity, power/sleep)		Software Management Tools • ThinkServer EasyStartup	
Keyboard	None (use USB port)			
Mouse	None (use USB port)		Power-On Hotkey • Setup Utility: F1 at startup • Diagnostic: F2 at startup • Network Boot: F12 at startup • RAID Configuration Utility: Ctrl+I at startup	
Power supply	One 280 watts standard, one maximum, autosensing, no hot-swap, no redundancy, 85% PSU, 80 PLUS® Bronze qualified			
Cooling	4 fans (power supply, CPU, rear, front)			
Rack mount	Rack shelf support			
Accessories		Security		
1GB PC3-10600 DDR3 ECC UDIMM	67Y1387	• Security chip (see information on left)		
2GB PC3-10600 DDR3 ECC UDIMM	67Y1388	• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)		
4GB PC3-10600 DDR3 ECC UDIMM	67Y1389	• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)		
500GB 3.5" SATA Cabled (7200 rpm)	67Y1401	• Power-on password		
1TB 3.5" SATA Cabled (7200 rpm)	67Y1402	• Boot sequence control		
More accessories on O-RED sheet		• Boot without keyboard, mouse, diskette		
Other accessories at lenovo.com/accessories		• Serial port I/O control		
Limited Warranty¹		• USB port disablement (front or all)		
⇒ 1-year parts and labor		Preloaded Operating System		
⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays)		<i>Some:</i> Genuine Windows Server® 2008 Foundations R2		
⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty		RoHS-compliant		
• Onsite service upgrade options (in eligible locations) ⁷				
• Post warranty maintenance services				
⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378				

See footnotes for important warranty information

US model announced March 9, 2010; previous models on February 23, 2010

Partial list of accessories supported on Lenovo® ThinkServer TS200v.

ThinkServer Ready accessories are available through Lenovo Business Partners. Locate a Business Partner near you at:
bplocator.lenovo.com

Memory

1GB PC3-10600 DDR3 ECC UDIMM	67Y1387	ann	02/23/10
2GB PC3-10600 DDR3 ECC UDIMM	67Y1388	ann	02/23/10
4GB PC3-10600 DDR3 ECC UDIMM	67Y1389	ann	02/23/10

Backup

Lenovo 160GB Internal USB RDX Bundle	67Y1394	ann	02/23/10
Lenovo 320GB Internal USB RDX Bundle	67Y1396	ann	02/23/10
Lenovo 500GB Internal USB RDX Bundle	67Y1398	ann	02/23/10
Lenovo 160GB RDX Data Cartridge	67Y1395	ann	02/23/10
Lenovo 320GB RDX Data Cartridge	67Y1397	ann	02/23/10
Lenovo 500GB RDX Data Cartridge	67Y1399	ann	02/23/10

Connectivity

Intel PRO/1000 PT Dual Port Ethernet	67Y1393	ann	02/23/10
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Disk Drive**3.5" SATA Cabled:**

250GB ² 3.5" SATA (7200 rpm)	67Y1400	ann	02/23/10
500GB 3.5" SATA (7200 rpm)	67Y1401	ann	02/23/10
1TB 3.5" SATA (7200 rpm)	67Y1402	ann	02/23/10

For more information on server accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/thinkserveraccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Partial list of Lenovo® ThinkPlus Services for ThinkServer TS200v

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html

Training classes

- The basics on components, diagnostics, troubleshooting, and managing Lenovo servers, delivered in interactive online format

Online Training, Understanding Lenovo Servers	45K4080
Online Training, Understanding Systems Management	45K4081
Installation, ThinkServer Hardware Only	45K4082

ThinkPlus service upgrade options⁷

LOR = Lenovo Onsite Repair

TS200v with 1-year warranty

3-year LOR 9x5 Next Business Day	45K4055
4-year LOR 9x5 Next Business Day	51J0723
5-year LOR 9x5 Next Business Day	51J0725

TS200v with 3-year warranty

4-year LOR 9x5 Next Business Day	51J0727
5-year LOR 9x5 Next Business Day	51J0729

Lenovo Online Data Backup

- Secure offsite data storage
- 256-bit Advanced Encryption System
- Data recovery or access in case of an unforeseen event
- Automatic, remote management
- Choose which business critical data to back up

1-year 25GB Server Lenovo Online Data Backup (US)	45K2115
1-year 50GB Server Lenovo Online Data Backup (US)	45K2116
1-year 100GB Server Lenovo Online Data Backup (US)	45K2117

ThinkPlus Priority Support

- 9x5 Next Business Day response Lenovo Onsite Repair
- 24x7 support with priority routing and advanced level technicians

TS200v with 3-year warranty

3-year Priority Support	45K4060
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ThinkPlus Priority Support with Hard Disk Drive Retention

- 9x5 Next Business Day response Lenovo Onsite Repair
- 24x7 support with priority routing and advanced level technicians
- Hard Disk Drive Retention (HDDR) means customer keeps disk

TS200v with 3-year warranty

3-year Priority Support with HDDR	45K5443
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ThinkPlus Productivity

- Priority Support
- Online Training, Understanding Lenovo Servers
- One-time hardware installation

3-year ThinkPlus Productivity, TS200v (3-year)	45K4086
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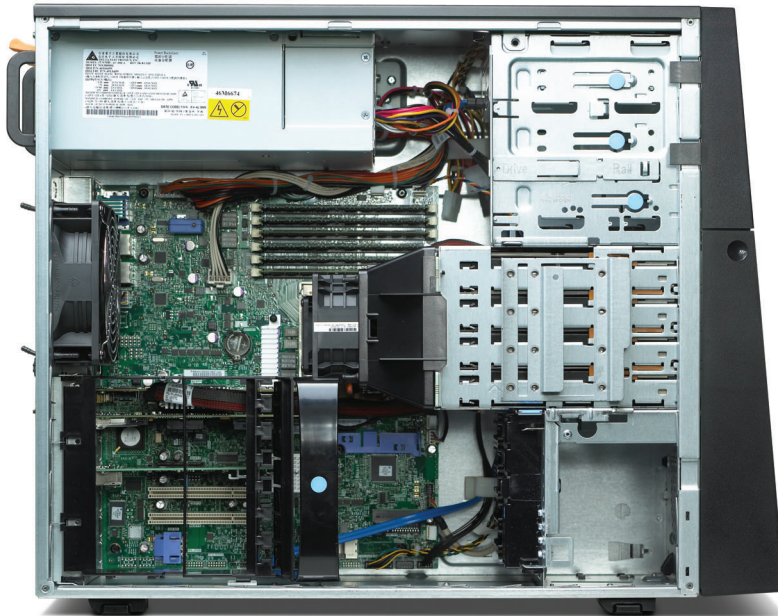
ThinkServer™



Lenovo ThinkServer TS200



Lenovo ThinkServer TS200
with Redundant Power Supply



Lenovo ThinkServer TS200
with Redundant Power Supply

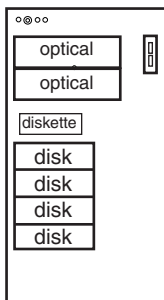
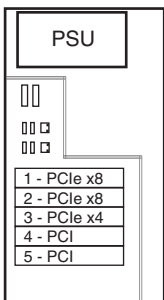


Lenovo ThinkServer TS200

Type-model	Slot x bay	Processor(s)	Base GHz	Max GHz	Cores	Memory DIMMs	Memory type	Memory speed	Disk size	RAID battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Avail date
6525-11U	5x7	X3430	2.40	2.80	4	1x2GB	UDIMM	1333MHz	3.5"	None	4xSimple-swap	SATA	0/1		401W	Nov 09
6525-12U	5x7	X3450	2.66	3.20	4	1x4GB	RDIMM	1333MHz	3.5"	None	4xHot-swap	SATA/SAS ⁴	0/1	IMM	401W	Nov 09
6525-16U	5x7	X3450	2.66	3.20	4	1x4GB	RDIMM	1333MHz	3.5"	None	4xHot-swap	SATA/SAS	0/1/10	IMM	401W	Jan 10

• These models have a 3-year limited warranty¹

• These small and medium business (SMB) models are part of the US TopSeller™ Program

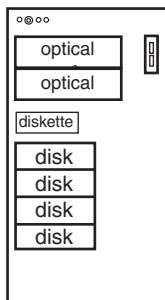
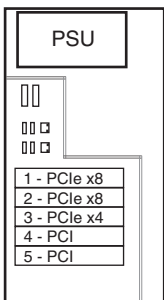
Processor(s)	Up to one processor, one processor standard, Intel® Xeon® Processor X3430 with quad-core , 2.5GT/s (giga-transfers/second) DMI (Direct Media Interface), Intel Turbo Boost Technology and Intel 64, 1333MHz DDR3 memory controller, 8MB cache or Intel Xeon Processor X3450 with quad-core , 2.5GT/s DMI, Intel Turbo Boost Technology, Intel Hyper-Threading Technology and Intel 64, 1333MHz DDR3 memory controller, 8MB cache	Front 	Rear 	
Implementation	One LGA1156 socket			
Memory	2GB or 4GB std, UDIMM or RDIMM* , PC3-10600 1333MHz DDR3, Advanced ECC** , Memory Mirroring 11U: Four 240-pin DIMM sockets, 16GB max (Pending availability of 4GB UDIMM), std memory in 1 socket, 3 sockets available 12U/16U: Six 240-pin DIMM sockets, 32GB max (Pending availability of 8GB RDIMM), std memory in 1 socket, 5 sockets available * Cannot intermix RDIMM and UDIMM memory ** Advanced ECC-enable DIMMs required	<ul style="list-style-type: none">• Tower mechanical• Business black color; metal case• 8.6"W x 21.3"D x 17.3"H• 218mm W x 540mm D x 440mm H• 56 lb (25.2kg) max configuration• Toolless side cover removal		
Graphics	Matrox® G200eV, integrated in Integrated Management Module (IMM), one VGA DB-15 in rear; 128MB, shared with IMM; <i>Maximum resolution: 1024x768@85Hz</i>			
Disk bays	11U: four 3.5" simple-swap (SS) SATA disk bays 12U/16U: four 3.5" hot-swap (HS) SATA/SAS disk bays			
Disk Controller	11U/12U: ServeRAID®-BR10iL, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1 support 16U: ServeRAID M1015, PCI Express bus, SATA 6Gb/s, SAS 6Gb/s, RAID 0, 1, 10 support			
Optical	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s			
Diskette	None (use USB port)			
Ethernet	Two gigabit ethernet ports***, Intel 82574L *** One port shared with system management			
Chipset	Intel 3420 Chipset , Platform Controller Hub (PCH) for PCI, ethernet and USB			
Extender card	None			
Front ports	Two USB 2.0			
Rear ports	Four USB 2.0, external monitor (VGA DB-15), one ethernet (RJ-45), one ethernet/system management (RJ-45), serial (9-pin)			
Internal ports	One USB 2.0 for tape drive or embedded hypervisor			
Diagnostics	Diagnostic LEDs (error LEDs for fans and memory)			
Systems mgmt	Trusted Platform Module (TPM) 1.2 support, IPMI 2.0-compliant 11U: IMM Standard, upgradeable to IMM Premium 12U/16U: IMM Premium			
Prerequisites	Monitor, SATA/SAS disk, OS			
Keyboard	None (use USB port)			
Mouse	None (use USB port)			
Power supply(s)	One 401 watts standard, one maximum, universal, auto switch, no hot-swap, no redundancy			
Cooling	Three fans std (power supply, system, hard drive cage), three maximum, no hot-swap, no redundancy			
Software Management Tools				
• ThinkServer EasyStartup				
Virtualization				
Virtualization ready, hypervisor connector embedded				
Max internal capacity				
11U: 4.0TB with four 1TB SS SATA disks (using 67Y1380) 12U/16U: 3.5" SATA HS: 4.0TB with four 1TB HS SATA disks (using 45J6204) 3.5" SAS HS: 2.4TB with four 600GB HS SAS disks (using 67Y1386)				
Limited Warranty¹				
⇒ 3-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays) ⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty <ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378				
		Disk Bays		
		Bay 1 5.25", 1.6" high, external, std optical Bay 2 5.25", 1.6" high, external, optional optical Bay 3 3.5", 1" high, external, optional diskette Bay 4 3.5", 1" high, external, optional disk Bay 5 3.5", 1" high, external, optional disk Bay 6 3.5", 1" high, external, optional disk Bay 7 3.5", 1" high, external, optional disk		
		Expansion Slots		
		Slot 1: full-length, full-height, PCI Express x8 Slot 2: full-length, full-height, PCI Express x8 Slot 3: full, PCI Express x4 (x1 electrical) Slot 4: full, 32-bit PCI Slot 5: full, 32-bit PCI		
		Power-On Hotkey		
		<ul style="list-style-type: none">• Setup Utility: F1 at startup• Diagnostic: F2 at startup• Network Boot: F12 at startup• RAID Configuration Utility: Ctrl+C at startup		
		Security		
		<ul style="list-style-type: none">• Side cover lock (ships with two identical keys)<ul style="list-style-type: none">- prohibits removal of front panel and disks• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (all)		
		ThinkPlus Priority Support, 90-day Trial		
		RoHS-compliant		
		Accessories		
		450GB 3.5" 6Gb/s SAS Disk HS (15000 rpm) 67Y1385 1TB 3.5" SATA Disk SS 67Y1380 600GB 3.5" 6Gb/s SAS Disk HS 67Y1386 Other accessories at lenovo.com/accessories		

- ***This model has a 3-year limited warranty¹***
- ***This small and medium business (SMB) model is part of the US TopSeller™ Program***

See footnotes for important warranty information
US model announced November 24, 2009

Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory type	Memory speed	Disk size	RAID battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Avail date
6524-11U	5x7	Pentium G6950	2.80	2	1x1GB	UDIMM	1333MHz	3.5"	None	4xSimple-swap	SATA	0/1	None	401W	Jan 10

- **This model has a 1-year limited warranty¹**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Processor(s)	Up to one processor, one processor standard, Intel® Pentium® Processor G6950 with dual-core , Intel 64, 1066MHz DDR3 memory controller, 3MB cache	Front 	Rear 	
Implementation	One LGA1156 socket			
Memory	1GB std, UDIMM, PC3-10600 1333MHz DDR3*, Advanced ECC**, Memory Mirroring Four 240-pin DIMM sockets, 16GB max (Pending availability of 4GB UDIMM), std memory in 1 socket, 3 sockets available * System automatically clocks down for processor with 1066MHz DDR3 memory controller ** Advanced ECC-enable DIMMs required	<ul style="list-style-type: none">• Tower mechanical• Business black color; metal case• 8.6"W x 21.3"D x 17.3"H• 218mm W x 540mm D x 440mm H• 56 lb (25.2kg) max configuration• Toolless side cover removal		
Graphics	Matrox® G200eV, integrated in Integrated Management Module (IMM), one VGA DB-15 in rear; 128MB, shared with IMM; <i>Maximum resolution: 1024x768@85Hz</i>			
Disk bays	Four 3.5" simple-swap (SS) SATA disk bays			
Disk Controller	ServeRAID®-BR10iL, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1 support			
Optical	DVD-ROM DL SATA 1.5Gb/s 16-48X Max Drive			
Diskette	None (use USB port)			
Ethernet	Two gigabit ethernet ports***, Intel 82574L *** One port shared with system management			
Chipset	Intel 3420 Chipset , Platform Controller Hub (PCH) for PCI, ethernet and USB			
Extender card	None			
Front ports	Two USB 2.0			
Rear ports	Four USB 2.0, external monitor (VGA DB-15), one ethernet (RJ-45), one ethernet/system management (RJ-45), serial (9-pin)			
Internal ports	One USB 2.0 for tape drive or embedded hypervisor			
Diagnostics	Diagnostic LEDs (error LEDs for fans and memory)			
Systems mgmt	IMM standard, Trusted Platform Module (TPM) 1.2 support, IPMI 2.0-compliant			
Prerequisites	Monitor, SATA disk, OS			
Keyboard	None (use USB port)			
Mouse	None (use USB port)			
Power supply(s)	One 401 watts standard, one maximum, universal, auto switch, no hot-swap, no redundancy			
Cooling	Three fans std (power supply, system, hard drive cage), three maximum, no hot-swap, no redundancy			
Accessories 1GB PC3-10600 DDR3 1333MHz UDIMM 67Y0122 160GB² 3.5" SATA Simple-swap 45J6195 250GB 3.5" SATA Simple-swap 45J6196 500GB 3.5" SATA Simple-swap 45J6197 750GB 3.5" SATA Simple-swap 45J6198 1TB 3.5" SATA Simple-swap 67Y1380 Other accessories at lenovo.com/accessories				
Software Management Tools • ThinkServer EasyStartup			Disk Bays Bay 1 5.25", 1.6" high, external, std optical Bay 2 5.25", 1.6" high, external, optional optical Bay 3 3.5", 1" high, external, optional diskette Bay 4 3.5", 1" high, external, optional disk Bay 5 3.5", 1" high, external, optional disk Bay 6 3.5", 1" high, external, optional disk Bay 7 3.5", 1" high, external, optional disk	
Virtualization Virtualization ready, hypervisor connector embedded			Expansion Slots Slot 1: full-length, full-height, PCI Express x8 Slot 2: full-length, full-height, PCI Express x8 Slot 3: full, PCI Express x4 (x1 electrical) Slot 4: full, 32-bit PCI Slot 5: full, 32-bit PCI	
Max internal capacity 4.0TB with four 1TB SS SATA disks (using 67Y1380)			Power-On Hotkey • Setup Utility: F1 at startup • Diagnostic: F2 at startup • Network Boot: F12 at startup • RAID Configuration Utility: Ctrl+C at startup	
Limited Warranty¹ ⇒ 1-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays) ⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty • Onsite service upgrade options (in eligible locations)⁷ • Post warranty maintenance services ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378			Security • Side cover lock (ships with two identical keys) - prohibits removal of front panel and disks • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (all) ThinkPlus Priority Support, 90-day Trial RoHS-compliant	

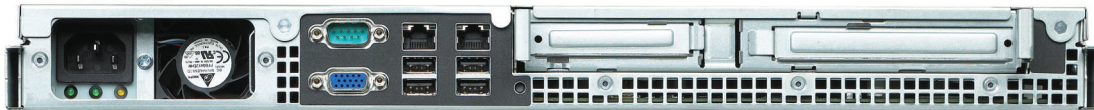
See footnotes for important warranty information
US model announced January 8, 2010



Lenovo® ThinkServer RS210
(Four 2.5" Disk Bays)



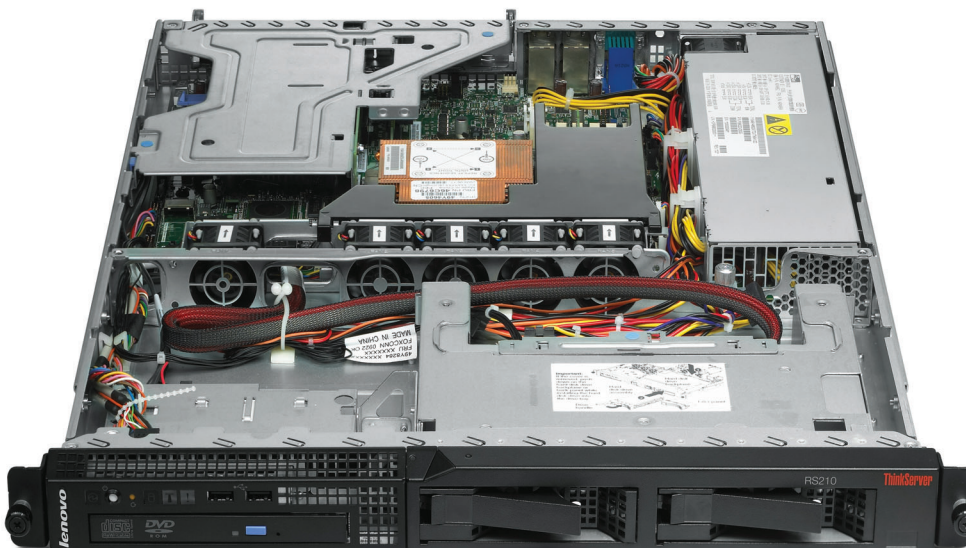
Lenovo ThinkServer RS210
(Two 3.5" Disk Bays)



Lenovo ThinkServer RS210



Lenovo ThinkServer RS210

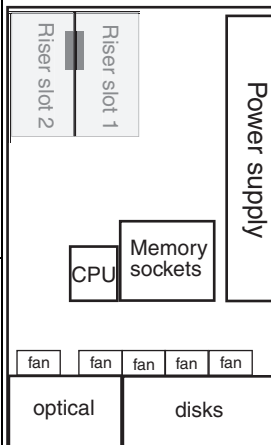
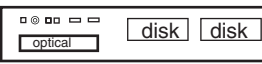
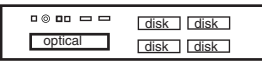



Lenovo ThinkServer RS210
(Two 3.5" Disk Bays)

Type-model	Slot x bay	Processor(s)	Base GHz	Max GHz	Cores	Memory DIMMs	Memory type	Memory speed	Disk size	RAID battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Avail date
6534-11U	2x3	X3430	2.40	2.80	4	1x2GB	UDIMM	1333MHz	3.5"	None	2xHot-swap	SATA/SAS ⁴	0/1		1x351W	Nov 09
6534-14U	2x5	X3450	2.66	3.20	4	1x4GB	RDIMM	1333MHz	2.5"	None	4xHot-swap	SATA/SAS	Multi*	IMM	1x351W	Nov 09
6534-16U	2x3	i3-530	2.93		2	1x1GB	UDIMM	1333MHz	3.5"	None	2xSimple-swap	SATA	0/1		1x351W	Jan 10
6534-17U	2x3	X3450	2.66	3.20	4	1x4GB	RDIMM	1333MHz	3.5"	None	2xHot-swap	SATA/SAS	0/1/5/10	IMM	1x351W	Jan 10

* Multi = RAID-0/1/5/6/10 support

- These models have a 3-year limited warranty¹
- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor(s)	Up to one processor, one processor standard, Intel® Core™ i3 Processor i3-530 with dual-core , Intel Hyper-Threading Technology and Intel 64, 1333MHz DDR3 memory controller, 4MB cache or Intel Xeon® Processor X3430 with quad-core , 2.5GT/s (giga-transfers/second) DMI (Direct Media Interface), Intel Turbo Boost Technology and Intel 64, 1333MHz DDR3 memory controller, 8MB cache or Intel Xeon Processor X3450 with quad-core , 2.5GT/s DMI, Intel Turbo Boost Technology, Intel Hyper-Threading Technology and Intel 64, 1333MHz DDR3 memory controller, 8MB cache		Front (Model 11U/16/17U) 	
Implementation	One LGA1156 socket		Front (Model 14U) 	
Memory	1GB, 2GB, or 4GB std, UDIMM or RDIMM* , PC3-10600 1333MHz DDR3, Advanced ECC** , Memory Mirroring 11U/16U: Four 240-pin DIMM sockets, 16GB max (Pending availability of 4GB UDIMM), std memory in 1 socket, 3 sockets available 14U/17U: Six 240-pin DIMM sockets, 32GB max (Pending availability of 8GB RDIMM), std memory in 1 socket, 5 sockets available * Cannot intermix RDIMM and UDIMM memory ** Advanced ECC-enable DIMMs required		Rear 	
Graphics	Matrox® G200eV, integrated in Integrated Management Module (IMM), one VGA DB-15 in rear; 128MB, shared with IMM; <i>Maximum resolution: 1024x768@85Hz</i>			
Disk bays	11U/17U: two 3.5" hot-swap (HS) SATA/SAS disk bays 16U: two 3.5" simple-swap (SS) SATA disk bays 14U: four HS SATA/SAS disk bays on 2.5" Slim-Form-Factor (SFF)			
Disk Controller	11U/16U: ServeRAID®-BR10iL, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1 support 14U: ServeRAID-MR10i, PCI Express bus, SATA 3Gb/s, SAS 3Gb/s, RAID 0, 1, 5, 6, 10 support 17U: ServeRAID M1015, PCI Express bus, SATA 6Gb/s, SAS 6Gb/s, RAID 0, 1, 5***, 10 support *** RAID 5 is supported by add-in Advanced Feature Key			
Optical Diskette Ethernet	UltraSlim Enhanced DVD±RW None (use USB port) Two gigabit ethernet ports***, Intel 82574L *** One port shared with system management			
Chipset	Intel 3420 Chipset , Platform Controller Hub (PCH) for PCI, ethernet and USB			
Front ports	Two USB 2.0			
Rear ports	Four USB 2.0, external monitor (VGA DB-15),one ethernet (RJ-45), one ethernet/system management (RJ-45), serial (9-pin)			
Internal ports	One USB 2.0 for embedded hypervisor			
Diagnostics	Diagnostic LEDs (error LEDs for fans and memory)			
Systems mgmt	Trusted Platform Module (TPM) 1.2 support, IPMI 2.0-compliant 11U/16U: IMM Standard, upgradeable to IMM Premium 14U/17U: IMM Premium			
Prerequisites	Monitor, SATA/SAS disk, OS			
Keyboard	None (use USB port)			
Mouse	None (use USB port)			
Power supply(s)	11U/16U/17U: One 351 watts, universal, auto switch, no hot-swap, no redundancy 14U: One 351 watts, high efficiency, universal, auto switch, no hot-swap, no redundancy			
Cooling	Six fans std (five system, one power supply), six maximum, variable speed, no hot-swap, no redundancy			
Limited Warranty¹				
⇒ 3-year parts and labor				
⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays)				
⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty				
• Onsite service upgrade options (in eligible locations) ⁷				
• Post warranty maintenance services				
⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378				
1U Rack top				
Expansion Slots				
Slot 1: low-profile, PCI Express x8 Slot 2: half-length, full-height, PCI Express x8				
Power-On Hotkey				
• Setup Utility: F1 at startup • Diagnostic: F2 at startup • Network Boot: F12 at startup • RAID Configuration Utility: Ctrl+C at startup				
Security				
• Side cover lock (ships with two identical keys) - prohibits removal of front panel and disks • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (all)				
Software Management Tools				
• ThinkServer EasyStartup • ThinkServer EasyManage				
ThinkPlus Priority Support, 90-day Trial				
RoHS-compliant				

See footnotes for important warranty information

US models announced January 8, 2010; previous models on November 24, 2009

Type-model	Slot x bay	Processor	Base GHz	Cores	Memory DIMMs	Memory type	Memory speed	Disk size	RAID battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Avail date	
6533-12U	2x3	Pentium G6950	2.80	2	1x1GB	UDIMM	1333MHz	3.5"	None	2xSimple-swap	SATA	0/1	None	1x351W	Jan 10	
<ul style="list-style-type: none">• This model has a 1-year limited warranty¹• This small and medium business (SMB) model is part of the US TopSeller™ Program																
Processor(s)	Up to one processor, one processor standard, Intel® Pentium® Processor G6950 with dual-core , Intel 64, 1066MHz DDR3 memory controller, 3MB cache									1U Rack top		Front				
Implementation	One LGA1156 socket															
Memory	1GB std, UDIMM, PC3-10600 1333MHz DDR3*, Advanced ECC**, Memory Mirroring Four 240-pin DIMM sockets, 16GB max (Pending availability of 4GB UDIMM), std memory in 1 socket, 3 sockets available * System automatically clocks down for processor with 1066MHz DDR3 memory controller ** Advanced ECC-enable DIMMs required											Rear				
Graphics	Matrox® G200eV, integrated in Integrated Management Module (IMM), one VGA DB-15 in rear; 128MB, shared with IMM; <i>Maximum resolution: 1024x768@85Hz</i>											Mechanical Specifications <ul style="list-style-type: none">• 1U Mechanical; rack-mount only• Black color front; metal case• 17.3"W x 22"D x 1.75"H• 440mm W x 560mm D x 43mm H• 28 lb (12.7kg) max configuration• Toolless top cover removal• Toolless disk and optical drive removal• Toolless adapter retention				
Disk bays	Two 3.5" simple-swap (SS) SATA disk bays															
Disk Controller	ServeRAID®-BR10iL, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1 support															
Optical	UltraSlim Enhanced DVD±RW															
Diskette	None (use USB port)															
Ethernet	Two gigabit ethernet ports***, Intel 82574L *** One port shared with system management															
Chipset	Intel 3420 Chipset , Platform Controller Hub (PCH) for PCI, ethernet and USB															
Extender card	None															
Front ports	Two USB 2.0															
Rear ports	Four USB 2.0, external monitor (VGA DB-15),one ethernet (RJ-45), one ethernet/system management (RJ-45), serial (9-pin)															
Internal ports	One USB 2.0 for embedded hypervisor															
Diagnostics	Diagnostic LEDs (error LEDs for fans and memory)															
Systems mgmt	IMM standard, Trusted Platform Module (TPM) 1.2 support, IPMI 2.0-compliant															
Prerequisites	Monitor, SATA disk, OS															
Keyboard	None (use USB port)															
Mouse	None (use USB port)															
Power supply(s)	One 351 watts, universal, auto switch, no hot-swap, no redundancy															
Cooling	Six fans std (five system, one power supply), six maximum, variable speed, no hot-swap, no redundancy															
Accessories																
1GB PC3-10600 DDR3 1333MHz UDIMM 67Y0122																
160GB ² 3.5" SATA Simple-swap 45J6195																
250GB 3.5" SATA Simple-swap 45J6196																
500GB 3.5" SATA Simple-swap 45J6197																
750GB 3.5" SATA Simple-swap 45J6198																
1TB 3.5" SATA Simple-swap 67Y1380																
Other accessories at lenovo.com/accessories																
Disk Bays																
Bay 1 5.25",0.5" high, external, std optical																
Bay 2 3.5", 1" high, external, optional disk																
Bay 3 3.5", 1" high, external, optional disk																
Expansion Slots																
Slot 1: low-profile, PCI Express x8																
Slot 2: half-length, full-height, PCI Express x8																
Power-On Hotkey																
• Setup Utility: F1 at startup																
• Diagnostic: F2 at startup																
• Network Boot: F12 at startup																
• RAID Configuration Utility: Ctrl+C at startup																
Security																
• Side cover lock (ships with two identical keys) - prohibits removal of front panel and disks																
• Power-on password																
• Administrator password																
• Boot sequence control																
• Boot without keyboard, mouse, diskette																
• Serial port I/O control																
• USB port disablement (all)																
ThinkPlus Priority Support, 90-day Trial																
RoHS-compliant																

See footnotes for important warranty information
 US model announced January 8, 2010

Partial list of accessories supported on Lenovo® ThinkServer TS200, RS210.

ThinkServer Ready accessories are available through Lenovo Business Partners. Locate a Business Partner near you at: bplocator.lenovo.com

Memory⁵³

1GB PC3-10600 DDR3 1333MHz UDIMM	67Y0122	ann	11/24/09
2GB PC3-10600 DDR3 1333MHz UDIMM	67Y0123	ann	11/24/09
1GB PC3-10600 DDR3 1333MHz RDIMM	67Y0014	ann	05/05/09
2GB PC3-10600 DDR3 1333MHz RDIMM	67Y0124	ann	11/24/09
4GB PC3-8500 DDR3 1066MHz RDIMM	67Y0125	ann	11/24/09

⁵³Mixing of UDIMM and RDIMM is not support

Backup

IBM® RDX 160GB Cartridge	67Y0169	ann	11/10/09
IBM RDX 320GB Cartridge	67Y0170	ann	11/10/09
IBM RDX 500GB Cartridge	67Y0171	ann	11/10/09
IBM DDS Generation 6 5-Pack Media	67Y1377	ann	11/10/09
IBM LTO Generation 3 5-Pack Media	67Y1379	ann	11/10/09

Connectivity

IBM 8Gb FC Single-port HBA by QLogic®	67Y0172	ann	11/10/09
IBM 8Gb FC Dual-port HBA by QLogic	67Y0173	ann	11/10/09
IBM 8Gb FC Single-port HBA by Emulex®	67Y0174	ann	11/10/09
IBM 8Gb FC Dual-port HBA by Emulex	67Y0175	ann	11/10/09
IBM 8Gb FC Single-port HBA by Brocade®	67Y0176	ann	11/10/09
IBM 8Gb FC Dual-port HBA by Brocade	67Y0177	ann	11/10/09

ThinkServer IBM RAID controller

SAS 3Gb HBA Controller V2	67Y0183	ann	11/10/09
ServeRAID® M1015	67Y1368	ann	12/08/09
ServeRAID M5015	67Y0184	ann	11/10/09
ServeRAID M5014	67Y0185	ann	11/10/09
ServeRAID M1000 Series Adv Feature Key	67Y1369	ann	12/08/09
ServeRAID M5000 Series Battery Kit	67Y0186	ann	11/10/09
ServeRAID M5000 Series Adv Feature Key	67Y0188	ann	12/08/09

Keyboard

Preferred Pro USB Keyboard	73P5220	ann	06/21/05
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Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
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Disk Drive**2.5" SAS Hot-swap (HS):**

73GB² 2.5" SAS SFF HS (15000 rpm)	67Y0115	ann	05/05/09
146GB 2.5" SAS SFF HS (10000 rpm)	67Y0116	ann	05/05/09
146GB 2.5" SAS SFF HS (15000 rpm)	67Y0117	ann	05/05/09
300GB 2.5" SAS SFF HS (10000 rpm)	67Y0118	ann	05/05/09

2.5" SATA Hot-swap (HS):

300GB 2.5" SATA SFF HS (10000 rpm)	67Y0002	ann	05/05/09
160GB 2.5" SATA SFF HS (7200 rpm)	67Y0120	ann	09/08/09
500GB 2.5" SATA SFF HS (7200 rpm)	67Y0121	ann	09/08/09

3.5" SAS Hot-swap (HS):

146GB 3.5" SAS HS (15000 rpm)	45J6211	ann	09/30/08
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3.5" 6Gb/s SAS HS:

300GB 3.5" SAS HS (15000 rpm)	67Y1384	ann	01/26/10
450GB 3.5" SAS HS (15000 rpm)	67Y1385	ann	01/26/10
600GB 3.5" SAS HS (15000 rpm)	67Y1386	ann	01/26/10

3.5" SATA Hot-swap (HS):

160GB 3.5" SATA HS (7200 rpm)	45J6200	ann	09/30/08
250GB 3.5" SATA HS (7200 rpm)	45J6201	ann	09/30/08
500GB 3.5" SATA HS (7200 rpm)	45J6202	ann	09/30/08
750GB 3.5" SATA HS (7200 rpm)	45J6203	ann	09/30/08
1TB 3.5" SATA HS (7200 rpm)	45J6204	ann	09/30/08

3.5" SATA Simple-swap:

160GB 3.5" SATA Simple-swap (7200 rpm)	45J6195	ann	09/30/08
250GB 3.5" SATA Simple-swap (7200 rpm)	45J6196	ann	09/30/08
500GB 3.5" SATA Simple-swap (7200 rpm)	45J6197	ann	09/30/08
750GB 3.5" SATA Simple-swap (7200 rpm)	45J6198	ann	09/30/08
1TB 3.5" SATA Simple-swap (7200 rpm)	67Y1380	ann	11/24/09

For more information on server accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/thinkserveraccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Partial list of Lenovo® ThinkPlus Services for ThinkServer

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html**Training classes**

- The basics on components, diagnostics, troubleshooting, and managing Lenovo servers, delivered in interactive online format

Online Training, Understanding Lenovo Servers	45K4080
Online Training, Understanding Systems Management	45K4081
Installation, ThinkServer Hardware Only	45K4082

ThinkPlus service upgrade options⁷*LOR = Lenovo Onsite Repair***TS200 with 1-year warranty**

3-year LOR 9x5 Next Business Day	45K4055
3-year LOR 9x5 4 hour response	45K4056
4-year LOR 9x5 Next Business Day	51J0723
4-year LOR 9x5 4 hour response	51J0724
5-year LOR 9x5 Next Business Day	51J0725
5-year LOR 9x5 4 hour response	51J0726

TS200 with 3-year warranty

3-year LOR 9x5 4 hour response	45K4059
4-year LOR 9x5 Next Business Day	51J0727
4-year LOR 9x5 4 hour response	51J0728
5-year LOR 9x5 Next Business Day	51J0729
5-year LOR 9x5 4 hour response	51J0730

RS210 with 1-year warranty

3-year LOR, 9x5 Next Business Day	45K4069
3-year LOR, 4 hour response	45K4070
4-year LOR 9x5 Next Business Day	51J0739
4-year LOR 9x5 4 hour response	51J0740
5-year LOR 9x5 Next Business Day	51J0741
5-year LOR 9x5 4 hour response	51J0742

RS210 with 3-year warranty

3-year LOR, 4 hour response	45K4073
4-year LOR 9x5 Next Business Day	51J0743
4-year LOR 9x5 4 hour response	51J0744
5-year LOR 9x5 Next Business Day	51J0745
5-year LOR 9x5 4 hour response	51J0746

Lenovo Online Data Backup

- Secure offsite data storage
- 256-bit Advanced Encryption System
- Data recovery or access in case of an unforeseen event
- Automatic, remote management
- Choose which business critical data to back up

1-year 25GB Server Lenovo Online Data Backup (US)	45K2115
1-year 50GB Server Lenovo Online Data Backup (US)	45K2116
1-year 100GB Server Lenovo Online Data Backup (US)	45K2117

ThinkPlus Priority Support

- 9x5 Next Business Day response Lenovo Onsite Repair
- 24x7 4-hour response Lenovo Onsite Repair (for Priority 4 Support)
- 24x7 support with priority routing and advanced level technicians

TS200 with 1-year warranty

3-year Priority Support	45K4057
3-year Priority 4 Support	45K4058

TS200 with 3-year warranty

3-year Priority Support	45K4060
3-year Priority 4 Support	45K4061

RS210 with 1-year warranty

3-year Priority Support	45K4071
3-year Priority 4 Support	45K4072

RS210 with 3-year warranty

3-year Priority Support	45K4074
3-year Priority 4 Support	45K4075

ThinkPlus Priority Support with Hard Disk Drive Retention

- 9x5 Next Business Day response Lenovo Onsite Repair
- 24x7 4-hour response Lenovo Onsite Repair (for Priority 4 Support)
- 24x7 support with priority routing and advanced level technicians
- Hard Disk Drive Retention (HDDR) means customer keeps disk

*HDDR = Hard Disk Drive Retention***TS200 with 1-year warranty**

3-year Priority Support with HDDR	45K5441
3-year Priority 4 Support with HDDR	45K5442

TS200 with 3-year warranty

3-year Priority Support with HDDR	45K5443
3-year Priority 4 Support with HDDR	45K5444

RS210 with 1-year warranty

3-year Priority Support with HDDR	45K5449
3-year Priority 4 Support with HDDR	45K5450

RS210 with 3-year warranty

3-year Priority Support with HDDR	45K5451
3-year Priority 4 Support with HDDR	45K5452

ThinkPlus Productivity

- Priority Support
- Online Training, Understanding Lenovo Servers
- One-time hardware installation

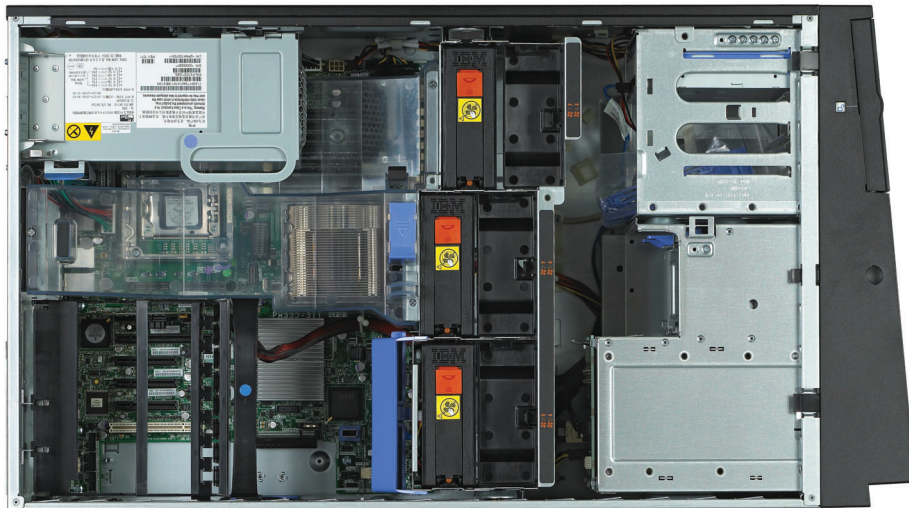
3-year ThinkPlus Productivity, TS200 (1-year)	45K4084
3-year ThinkPlus Productivity, TS200 (3-year)	45K4086
3-year ThinkPlus Productivity, RS210 (1-year)	45K4092
3-year ThinkPlus Productivity, RS210 (3-year)	45K4094



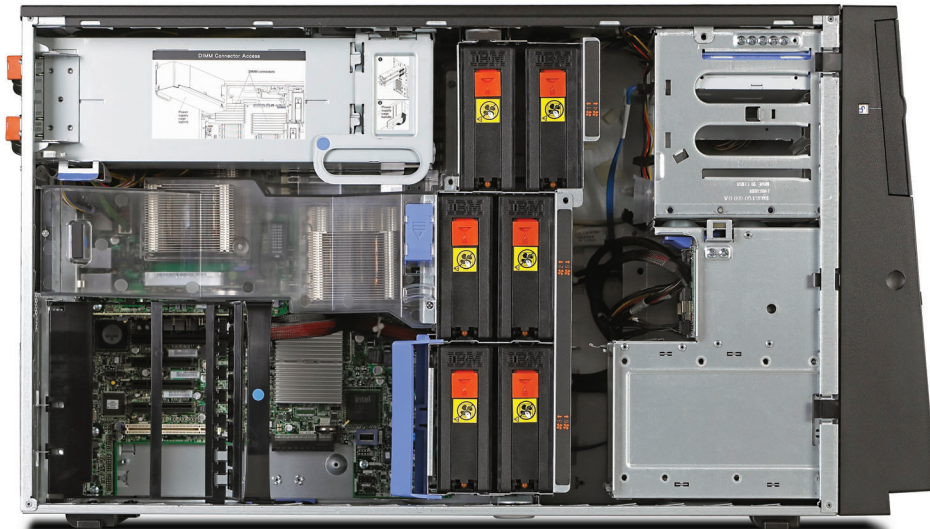
Lenovo ThinkServer TD200



Lenovo ThinkServer TD200x



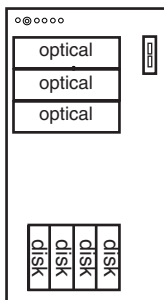
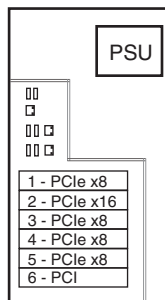
Lenovo ThinkServer TD200



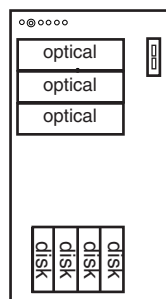
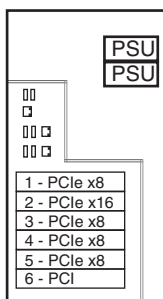
Lenovo ThinkServer TD200x

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	RAID Battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Ethernet	Avail date
TD200	3809-3AU	6x7	1xE5502	1.86	2	1x2GB	1333MHz	3.5"	None	4xSimple-swap	SATA	0/1	None	670W	2xGb	Sep 09
TD200	3809-3BU	6x7	1xE5504	2.00	4	1x2GB	1333MHz	3.5"	None	4xHot-swap	SATA/SAS ⁴	0/1	None	670W	2xGb	Sep 09

- **Easy to use with ThinkServer EasyStartup and EasyManage software**
- **These models have a 3-year limited warranty¹**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5502 with dual-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5504 with quad-core , 4.8GT/s QPI, 800MHz DDR3 memory controller, and 4MB cache	Front 	Rear 																												
Implementation	Processor uses FC-LGA package, two LGA1366 sockets																														
Memory	2GB std, 96GB max (48GB per processor), RDIMM, PC3-10600 1333MHz DDR3*, Advanced ECC** , Memory Mirroring , twelve 240-pin DIMM sockets***, * System automatically clocks down for processors with 800MHz DDR3 memory controller ** Advanced ECC-enable DIMMs required *** Over six DIMMs requires dual processors	<ul style="list-style-type: none">• Tower mechanical, rack-mountable to 5U• Business black color; metal case• 8.6"W x 29.4"D x 17.3"H• 218mm W x 747mm D x 440mm H• 77 lb (35kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support <table><tr><td>Bay 1</td><td>5.25", 1.6" high,</td><td>external,</td><td>std optical</td></tr><tr><td>Bay 2</td><td>5.25", 1.6" high,</td><td>external,</td><td>optional optical</td></tr><tr><td>Bay 3</td><td>5.25", 1.6" high,</td><td>external,</td><td>optional optical</td></tr><tr><td>Bay 4</td><td>3.5", 1" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 5</td><td>3.5", 1" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 6</td><td>3.5", 1" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 7</td><td>3.5", 1" high,</td><td>external,</td><td>optional disk</td></tr></table> <p>Slot 1: half-length, full-height, PCI Express x8 Slot 2: full, PCI Express x16 (x8 electrical) Slot 3: full, PCI Express x8 (x4 electrical) Slot 4: full, PCI Express x8 (x4 electrical) Slot 5: full, PCI Express x8 Slot 6: half-length, 32-bit PCI 2.3</p>		Bay 1	5.25", 1.6" high,	external,	std optical	Bay 2	5.25", 1.6" high,	external,	optional optical	Bay 3	5.25", 1.6" high,	external,	optional optical	Bay 4	3.5", 1" high,	external,	optional disk	Bay 5	3.5", 1" high,	external,	optional disk	Bay 6	3.5", 1" high,	external,	optional disk	Bay 7	3.5", 1" high,	external,	optional disk
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Bay 4	3.5", 1" high,			external,	optional disk																										
Bay 5	3.5", 1" high,			external,	optional disk																										
Bay 6	3.5", 1" high,			external,	optional disk																										
Bay 7	3.5", 1" high,			external,	optional disk																										
Graphics	Matrox® G200e integrated, one VGA DB-15 in rear, 16MB; <i>Maximum resolution: 1600x1200@85Hz</i>																														
Disk bays	3AU: four 3.5" simple-swap (SS) SATA disk bays 3BU: four 3.5" hot-swap (HS) SATA/SAS disk bays																														
Disk Controller	ServeRAID®-BR10i, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1 support																														
Optical Diskette Ethernet	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s None (use USB port) Two Gigabit Ethernet ports, Broadcom® 5709C, PCI Express bus, TCP/IP Offload Engine(TOE), load balancing																														
Chipset	Intel 5520 Chipset , Intel I/O Hub (IOH) for PCI Express slots and links to BCM5709C, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 (ICH10) for USB, a PCI slot, PCIe links to SATA/SAS controller, LPC bus to VSC452 for limited Super I/O																														
Extender card	None																														
Front ports	Two USB 2.0																														
Rear ports	Four USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45)																														
Internal ports	Two USB 2.0, one connector for tape drive, one connector for embedded hypervisor																														
Diagnostics	Diagnostic LEDs (system-error LED on front cover; error LEDs for RAID, memory, processors, voltage regulator module, power supply)																														
Systems mgmt	Integrated Management Module (IMM) std, IPMI 2.0-compliant, Trusted Platform Module (TPM) 1.2 support, upgradeable to IMM Premium																														
Prerequisites	Monitor, SATA/SAS disk, OS																														
Keyboard	None (use USB port)																														
Mouse	None (use USB port)																														
Power supply(s)	One 670 watts standard, one maximum, rear access, universal																														
Cooling	Three fans std, three maximum, variable speed, hot-swap																														
Accessories <table><tr><td>Intel Xeon Dual-Core Processor E5502</td><td>67Y0008</td></tr><tr><td>Intel Xeon Quad-Core Processor E5504</td><td>67Y0009</td></tr><tr><td>2GB PC3-10600 DDR3 1333 MHz RDIMM</td><td>67Y0015</td></tr><tr><td>4GB PC3-10600 DDR3 1333 MHz RDIMM</td><td>67Y0016</td></tr><tr><td>750GB 3.5" SATA Disk SS (7200 rpm)</td><td>45J6198</td></tr><tr><td>1TB 3.5" SATA Disk HS (7200 rpm)</td><td>45J6204</td></tr></table> Other accessories at lenovo.com/accessories				Intel Xeon Dual-Core Processor E5502	67Y0008	Intel Xeon Quad-Core Processor E5504	67Y0009	2GB PC3-10600 DDR3 1333 MHz RDIMM	67Y0015	4GB PC3-10600 DDR3 1333 MHz RDIMM	67Y0016	750GB 3.5" SATA Disk SS (7200 rpm)	45J6198	1TB 3.5" SATA Disk HS (7200 rpm)	45J6204																
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1TB 3.5" SATA Disk HS (7200 rpm)	45J6204																														
Max internal capacity 3AU: 3.0TB with four 750GB SS SATA disks 3BU: 4.0TB with four 1TB HS SATA disks																															
Virtualization Virtualization ready, hypervisor connector embedded																															
Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays)⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																															
Software Management Tools <ul style="list-style-type: none">• ThinkServer EasyStartup• ThinkServer EasyManage																															
Power-On Hotkey <ul style="list-style-type: none">• Setup Utility: F1 at startup• Diagnostic: F2 at startup• Network Boot: F12 at startup• RAID configuration utility: Ctrl+A at startup																															
Security <ul style="list-style-type: none">• Side cover lock (ships with two identical keys)<ul style="list-style-type: none">- prohibits removal of front panel and disks• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (all)																															
ThinkPlus Priority Support, 90-day Trial																															
RoHS-compliant																															

See footnotes for important warranty information
 US models announced September 8, 2009

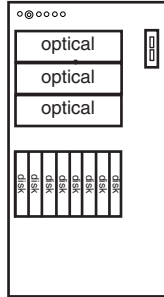
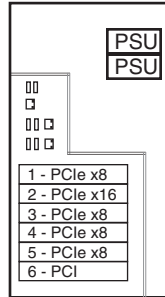
Name	Type-model	Slot x bay	Processor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	RAID Battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Ethernet	Avail date																												
TD200	3817-3GU	6x7	1xE5506	2.13	4	2x2GB	1333MHz	3.5"	None	4xHot-swap	SATA/SAS ⁴	Multi*	None	2x920W	2xGb	Oct 09																												
* Multi = RAID-0/1/5/6/10 support																																												
<ul style="list-style-type: none">• Easy to use with ThinkServer EasyStartup and EasyManage software• These models have a 3-year limited warranty¹• This small and medium business (SMB) model is part of the EMEA TopSeller™ Program																																												
Processor(s) Up to two processors, one processor standard, Intel® Xeon® Processor E5506 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 800MHz DDR3 memory controller, and 4MB cache											Front 		Rear 																															
Implementation Processor uses FC-LGA package, two LGA1366 sockets																																												
Memory 4GB std, 96GB max (48GB per processor), RDIMM, PC3-10600 1333MHz DDR3* , Advanced ECC** , Memory Mirroring , twelve 240-pin DIMM sockets***, * System automatically clocks down for processors with 800MHz DDR3 memory controller ** Advanced ECC-enable DIMMs required *** Over six DIMMs requires dual processors																																												
Graphics Matrox® G200e integrated, one VGA DB-15 in rear, 16MB; <i>Maximum resolution: 1600x1200@85Hz</i>																																												
Disk bays Four 3.5" hot-swap (HS) SATA/SAS disk bays											<ul style="list-style-type: none">• Tower mechanical, rack-mountable to 5U• Business black color; metal case• 8.6"W x 29.4"D x 17.3"H• 218mm W x 747mm D x 440mm H• 77 lb (35kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support <table><tr><td>Bay 1</td><td>5.25", 1.6" high,</td><td>external,</td><td>std optical</td></tr><tr><td>Bay 2</td><td>5.25", 1.6" high,</td><td>external,</td><td>optional optical</td></tr><tr><td>Bay 3</td><td>5.25", 1.6" high,</td><td>external,</td><td>optional optical</td></tr><tr><td>Bay 4</td><td>3.5", 1" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 5</td><td>3.5", 1" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 6</td><td>3.5", 1" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 7</td><td>3.5", 1" high,</td><td>external,</td><td>optional disk</td></tr></table> <p>Slot 1: half-length, full-height, PCI Express x8 Slot 2: full, PCI Express x16 (x8 electrical) Slot 3: full, PCI Express x8 (x4 electrical) Slot 4: full, PCI Express x8 (x4 electrical) Slot 5: full, PCI Express x8 Slot 6: half-length, 32-bit PCI 2.3</p>						Bay 1	5.25", 1.6" high,	external,	std optical	Bay 2	5.25", 1.6" high,	external,	optional optical	Bay 3	5.25", 1.6" high,	external,	optional optical	Bay 4	3.5", 1" high,	external,	optional disk	Bay 5	3.5", 1" high,	external,	optional disk	Bay 6	3.5", 1" high,	external,	optional disk	Bay 7	3.5", 1" high,	external,	optional disk
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Bay 7	3.5", 1" high,	external,	optional disk																																									
Disk Controller ServeRAID-MR10i, PCIe bus, SATA 3Gb/s, SAS 3Gb/s, RAID 0, 1, 5, 6, 10, 50 support																																												
Optical Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s																																												
Diskette None (use USB port)																																												
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Chipset Intel 5520 Chipset , Intel I/O Hub (IOH) for PCI Express slots and links to BCM5709C, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 (ICH10) for USB, a PCI slot, PCIe links to SATA/SAS controller, LPC bus to VSC452 for limited Super I/O																																												
Extender card None																																												
Front ports Two USB 2.0																																												
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Internal ports Two USB 2.0, one connector for tape drive, one connector for embedded hypervisor																																												
Diagnostics Diagnostic LEDs (system-error LED on front cover; error LEDs for RAID, memory, processors, voltage regulator module, power supply)																																												
Systems mgmt Integrated Management Module (IMM) std, IPMI 2.0-compliant, Trusted Platform Module (TPM) 1.2 support, upgradeable to IMM Premium																																												
Prerequisites Monitor, SATA/SAS disk, OS																																												
Keyboard None (use USB port)																																												
Mouse None (use USB port)																																												
Power supply(s) Two 920 watts standard, two maximum, rear access, hot-swap, redundant with two power supplies																																												
Cooling Three fans std, three maximum, variable speed, hot-swap																																												
Accessories <table><tr><td>Intel Xeon Dual-Core Processor E5506</td><td>67Y0010</td></tr><tr><td>2GB PC3-10600 DDR3 ECC RDIMM</td><td>67Y0015</td></tr><tr><td>4GB PC3-10600 DDR3 ECC RDIMM</td><td>67Y0016</td></tr><tr><td>146GB² 3.5" SAS HS (15000 rpm)</td><td>45J6211</td></tr><tr><td>160GB 3.5" SATA HS (7200 rpm)</td><td>45J6200</td></tr><tr><td>250GB 3.5" SATA HS (7200 rpm)</td><td>45J6201</td></tr><tr><td>500GB 3.5" SATA HS (7200 rpm)</td><td>45J6202</td></tr><tr><td>750GB 3.5" SATA HS (7200 rpm)</td><td>45J6203</td></tr><tr><td>1TB 3.5" SATA HS (7200 rpm)</td><td>45J6204</td></tr></table> Other accessories at lenovo.com/accessories											Intel Xeon Dual-Core Processor E5506	67Y0010	2GB PC3-10600 DDR3 ECC RDIMM	67Y0015	4GB PC3-10600 DDR3 ECC RDIMM	67Y0016	146GB ² 3.5" SAS HS (15000 rpm)	45J6211	160GB 3.5" SATA HS (7200 rpm)	45J6200	250GB 3.5" SATA HS (7200 rpm)	45J6201	500GB 3.5" SATA HS (7200 rpm)	45J6202	750GB 3.5" SATA HS (7200 rpm)	45J6203	1TB 3.5" SATA HS (7200 rpm)	45J6204																
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Max internal capacity 4.0TB with four 1TB HS SATA disks																																												
Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays)⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																												
											Virtualization Virtualization ready, hypervisor connector embedded																																	
											Software Management Tools <ul style="list-style-type: none">• ThinkServer EasyStartup• ThinkServer EasyManage																																	
											Power-On Hotkey <ul style="list-style-type: none">• Setup Utility: F1 at startup• Diagnostic: F2 at startup• Network Boot: F12 at startup• RAID configuration utility: Ctrl+A at startup																																	
											Security <ul style="list-style-type: none">• Side cover lock (ships with two identical keys)<ul style="list-style-type: none">- prohibits removal of front panel and disks• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (all)																																	
											ThinkPlus Priority Support, 90-day Trial																																	
											RoHS-compliant																																	

See footnotes for important warranty information
US model announced September 29, 2009

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	RAID Battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Ethernet	Avail date
TD200x	3822-41U	6x11	1xE5520	2.26	4	2x2GB	1333MHz	2.5"		8xHot-swap	SATA/SAS ⁴	Multi*	Premium	2x920W	2xGb	Jul 09
TD200x	3822-42U	6x11	1xE5530	2.40	4	3x2GB	1333MHz	2.5"		8xHot-swap	SATA/SAS	Multi	Premium	2x920W	2xGb	Jul 09
TD200x	3822-43U	6x11	2xE5530	2.40	8	6x2GB	1333MHz	2.5"	Battery	8xHot-swap	SATA/SAS	Multi	Premium	2x920W	2xGb	Jul 09

* Multi = RAID-0/1/5/6/10/50/60 support

- **These models have a 3-year limited warranty¹**
- **Fully loaded, high performance tower computing and virtualization ready**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

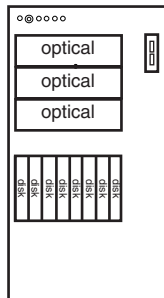
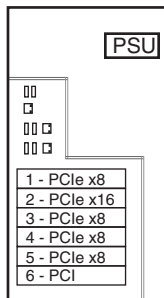
Processor(s)	Up to two processors, one or two processors standard, Intel® Xeon® Processor E5520 or E5530 with quad-core , 5.86GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 1066MHz DDR3 memory controller, and 8MB cache	<div>Front</div>  <div>Rear</div>  <ul style="list-style-type: none">• Tower mechanical, rack-mountable to 5U• Business black color; metal case• 8.6"W x 29.4"D x 17.3"H• 218mm W x 747mm D x 440mm H• 84 lb (38kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support <table><tr><td>Bay 1</td><td>5.25", 1.6" high,</td><td>external,</td><td>std optical</td></tr><tr><td>Bay 2</td><td>5.25", 1.6" high,</td><td>external,</td><td>optional optical</td></tr><tr><td>Bay 3</td><td>5.25", 1.6" high,</td><td>external,</td><td>optional optical</td></tr><tr><td>Bay 4</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 5</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 6</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 7</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 8</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 9</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 10</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 11</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr></table> <p>Slot 1: half-length, full-height, PCI Express x8 Slot 2: full, PCI Express x16 (x8 electrical) Slot 3: full, PCI Express x8 (x4 electrical) Slot 4: full, PCI Express x8 (x4 electrical) Slot 5: full, PCI Express x8 Slot 6: half-length, full-height, 32-bit PCI 2.3</p>	Bay 1	5.25", 1.6" high,	external,	std optical	Bay 2	5.25", 1.6" high,	external,	optional optical	Bay 3	5.25", 1.6" high,	external,	optional optical	Bay 4	2.5", 0.6" high,	external,	optional disk	Bay 5	2.5", 0.6" high,	external,	optional disk	Bay 6	2.5", 0.6" high,	external,	optional disk	Bay 7	2.5", 0.6" high,	external,	optional disk	Bay 8	2.5", 0.6" high,	external,	optional disk	Bay 9	2.5", 0.6" high,	external,	optional disk	Bay 10	2.5", 0.6" high,	external,	optional disk	Bay 11	2.5", 0.6" high,	external,	optional disk
Bay 1	5.25", 1.6" high,		external,	std optical																																										
Bay 2	5.25", 1.6" high,		external,	optional optical																																										
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Bay 10	2.5", 0.6" high,		external,	optional disk																																										
Bay 11	2.5", 0.6" high,		external,	optional disk																																										
Implementation	Processor uses FC-LGA package, two LGA1366 sockets																																													
Memory	4GB, 6GB, or 12GB std, 128GB max (64GB per processor), RDIMM, PC3-10600 1333MHz DDR3*, Advanced ECC**, Memory Mirroring , sixteen 240-pin DIMM sockets, std memory in 2, 3, or 6 sockets, 14, 13, or 10 sockets available***, eight sockets distributed into 3-channel per processor (3-3-2) * System automatically clocks down for processors with 1066MHz DDR3 memory controller ** Advanced ECC-enable DIMMs required *** Over eight DIMMs requires dual processors																																													
Graphics	Matrox® G200e, integrated, one VGA DB-15 in rear, 16MB; <i>Maximum resolution: 1600x1200@85Hz</i>																																													
Disk bays	8 hot-swap (HS) SATA/SAS disk bays, 2.5" Slim-Form-Factor (SFF) std																																													
Disk Controller	ServeRAID®-MR10i, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1, 5, 6, 10, 50, 60 support 43U: Battery backed cache integrated																																													
Optical	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s																																													
Diskette	None (use USB port)																																													
Ethernet	Two Gigabit Ethernet ports, Broadcom® 5709C, PCI Express bus, TCP/IP Offload Engine(TOE), load balancing																																													
Chipset	Intel 5520 Chipset , Intel I/O Hub (IOH) for PCI Express slots 1-5 (see right) and links to BCM5709C, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 (ICH10) for USB, a PCI slot, PCIe links to SATA/SAS controller, LPC bus to VSC452 for limited Super I/O																																													
Extender card	None																																													
Front ports	Two USB 2.0																																													
Rear ports	Four USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45)																																													
Internal ports	Two USB 2.0, one connector for tape drive, one connector for embedded hypervisor																																													
Diagnostics	Easy LED Diagnostics (operator information panel on front cover with error LEDs for fans, disks, RAID, memory, processors, voltage regulator module, PCI slots, power supplies)																																													
Systems mgmt	Integrated Management Module (IMM) Premium, Trusted Platform Module (TPM) 1.2 support, IPMI 2.0-compliant,																																													
Prerequisites	Monitor, SATA/SAS disk, OS																																													
Keyboard	None (use USB port)																																													
Mouse	None (use USB port)																																													
Power supply(s)	Two 920 watts standard, two maximum, rear access, hot-swap, auto-sensing, redundant with two power supplies																																													
Cooling	Six fans std, six maximum, variable speed, hot-swap																																													
Accessories Intel Xeon Quad-Core Processor E5520 67Y0011 Intel Xeon Quad-Core Processor E5530 67Y0102 2GB PC3-10600 DDR3 1333 MHz RDIMM 67Y0015 300GB² 2.5" SAS SFF HS (10000 rpm) 67Y0118 500GB 2.5" SATA SFF HS (7200 rpm) 67Y0121 Other accessories at lenovo.com/accessories																																														
Max internal capacity 4.0TB with eight 500GB SATA SFF disks																																														
Limited Warranty¹ ⇒ 3-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays) ⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty <ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																														

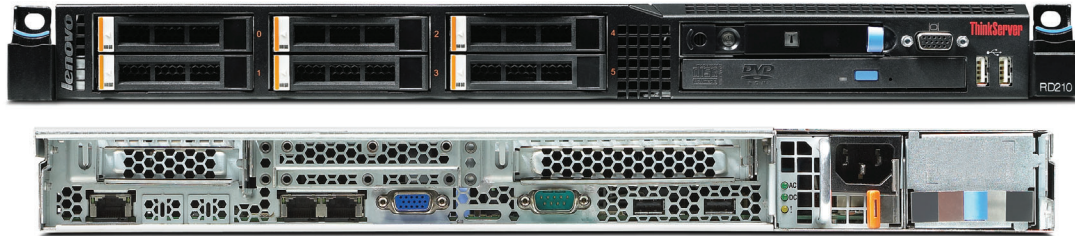
Virtualization	
Virtualization ready, hypervisor connector embedded	
Power-On Hotkey	
<ul style="list-style-type: none">• Setup Utility: F1 at startup• Diagnostic: F2 at startup• Network Boot: F12 at startup• RAID configuration utility: Ctrl+A at startup	
Software Management Tools	
<ul style="list-style-type: none">• ThinkServer EasyStartup• ThinkServer EasyManage	
Security	
<ul style="list-style-type: none">• Side cover lock (ships with two identical keys)<ul style="list-style-type: none">- prohibits removal of front panel and disks• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (all)	
ThinkPlus Priority Support, 90-day Trial	
RoHS-compliant	

See footnotes for important warranty information
US models announced June 30, 2009

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	RAID Battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Ethernet	Avail date
TD200x	3822-47U	6x7	1xE5504	2.00	4	1x2GB	1333MHz	3.5"	No	4xHot-swap	SATA/SAS ⁴	0/1/10	Premium	1x920W	2xGb	Jan 10
TD200x	3822-48U	6x11	1xE5520	2.26	4	1x4GB	1333MHz	2.5"	No	8xHot-swap	SATA/SAS	0/1/10	Premium	1x920W	2xGb	Jan 10

- **These models have a 3-year limited warranty¹**
- **Fully loaded, high performance tower computing, and virtualization ready**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5504 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5520 with quad-core , 5.86GT/s QPI, 1066MHz DDR3 memory controller, and 8MB cache		Processor uses FC-LGA package, two LGA1366 sockets	
Implementation				
Memory	2GB or 4GB std, 128GB max (64GB per processor), RDIMM, PC3-10600 1333MHz DDR3*, Advanced ECC** , Memory Mirroring , sixteen 240-pin DIMM sockets, std memory in 1 socket, 15 sockets available***, eight sockets distributed into 3-channel per processor (3-3-2) * System automatically clocks down for processors with 800MHz or 1066 MHz DDR3 memory controller ** Advanced ECC-enable DIMMs required *** Over eight DIMMs requires dual processors			
Graphics	Matrox® G200e, integrated, one VGA DB-15 in rear, 16MB; <i>Maximum resolution: 1600x1200@85Hz</i>			
Disk bays	47U: four 3.5" hot-swap (HS) SATA/SAS disk bays 48U: eight HS SATA/SAS disk bays, 2.5" Slim-Form-Factor (SFF) std			
Disk Controller	ServeRAID® M1015, PCI Express bus, SATA 6Gb/s, SAS 6Gb/s, RAID 0, 1, 10 support			
Optical Diskette Ethernet	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s None (use USB port) Two Gigabit Ethernet ports, Broadcom® 5709C, PCI Express bus, TCP/IP Offload Engine(TOE), load balancing			
Chipset	Intel 5520 Chipset , Intel I/O Hub (IOH) for PCI Express slots 1-5 (see right) and links to BCM5709C, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 (ICH10) for USB, a PCI slot, PCIe links to SATA/SAS controller, LPC bus to VSC452 for limited Super I/O			
Extender card	None			
Front ports	Two USB 2.0			
Rear ports	Four USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45)			
Internal ports	Two USB 2.0, one connector for tape drive, one connector for embedded hypervisor			
Diagnostics	Easy LED Diagnostics (operator information panel on front cover with error LEDs for fans, disks, RAID, memory, processors, voltage regulator module, PCI slots, power supplies)			
Systems mgmt	Integrated Management Module (IMM) Premium, Trusted Platform Module (TPM) 1.2 support, IPMI 2.0-compliant,			
Prerequisites	Monitor, SATA/SAS disk, OS			
Keyboard	None (use USB port)			
Mouse	None (use USB port)			
Power supply(s)	One 920 watts standard, two maximum, rear access, hot-swap, auto-sensing, redundant with two power supplies			
Cooling	Six fans std, six maximum, variable speed, hot-swap			
Accessories				
2GB PC3-10600 DDR3 1333 MHz RDIMM		67Y0015		
4GB PC3-10600 DDR3 1333 MHz RDIMM		67Y0016		
Other accessories at lenovo.com/accessories				
Virtualization				
Virtualization ready, hypervisor connector embedded				
Software Management Tools				
• ThinkServer EasyStartup • ThinkServer EasyManage				
Limited Warranty¹				
⇒ 3-year parts and labor				
⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays)				
⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty				
• Onsite service upgrade options (in eligible locations) ⁷				
• Post warranty maintenance services				
⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378				
Front (48U only)				
				
Rear				
				
<ul style="list-style-type: none">• Tower mechanical, rack-mountable to 5U• Business black color; metal case• 8.6"W x 29.4"D x 17.3"H• 218mm W x 747mm D x 440mm H• 84 lb (38kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support				
47U:				
Bay 1 5.25", 1.6" high, external, std optical				
Bay 2 5.25", 1.6" high, external, optional optical				
Bay 3 5.25", 1.6" high, external, optional optical				
Bay 4 3.5", 1" high, external, optional disk				
Bay 5 3.5", 1" high, external, optional disk				
Bay 6 3.5", 1" high, external, optional disk				
Bay 7 3.5", 1" high, external, optional disk				
48U:				
Bay 1 5.25", 1.6" high, external, std optical				
Bay 2 5.25", 1.6" high, external, optional optical				
Bay 3 5.25", 1.6" high, external, optional optical				
Bay 4 2.5", 0.6" high, external, optional disk				
Bay 5 2.5", 0.6" high, external, optional disk				
Bay 6 2.5", 0.6" high, external, optional disk				
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Bay 8 2.5", 0.6" high, external, optional disk				
Bay 9 2.5", 0.6" high, external, optional disk				
Bay 10 2.5", 0.6" high, external, optional disk				
Bay 11 2.5", 0.6" high, external, optional disk				
Slot 1: half-length, full-height, PCI Express x8				
Slot 2: full, PCI Express x16 (x8 electrical)				
Slot 3: full, PCI Express x8 (x4 electrical)				
Slot 4: full, PCI Express x8 (x4 electrical)				
Slot 5: full, PCI Express x8				
Slot 6: half-length, full-height, 32-bit PCI 2.3				
Power-On Hotkey				
<ul style="list-style-type: none">• Setup Utility: F1 at startup• Diagnostic: F2 at startup• Network Boot: F12 at startup• RAID configuration utility: Ctrl+A at startup				
Security				
<ul style="list-style-type: none">• Side cover lock (ships with two identical keys)<ul style="list-style-type: none">- prohibits removal of front panel and disks• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (all)				
ThinkPlus Priority Support, 90-day Trial				
RoHS-compliant				



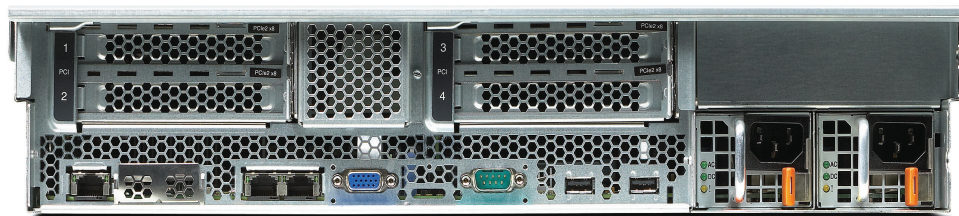
Lenovo® ThinkServer RD210



Lenovo ThinkServer RD220
(8 Disk Bays plus Tape Drive)



Lenovo ThinkServer RD220
(12 Disk Bays)



Lenovo ThinkServer RD220

Name	Type-model	Slot x bay	Processor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	RAID Battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Ethernet	Avail date																																										
RD210	3795-21U	2x7	1xE5502	1.86	2	1x1GB	1333MHz	2.5"	None	6xHot-swap	SATA/SAS ⁴	0/1	None	1x675W	2xGb	May 09																																										
<ul style="list-style-type: none">• This model has a 1-year limited warranty¹• This small and medium business (SMB) model is part of the US TopSeller™ Program																																																										
Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5502 with dual-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 800MHz DDR3 memory controller, and 4MB cache										<div><div>1U Rack top</div><div><div><div>Opt PSU</div><div>Power supply</div><div>Riser slot 2</div><div>Riser slot 1</div><div>CPU</div><div>Memory sockets</div><div>Memory sockets</div><div>CPU</div><div>fan fan fan fan fan fan</div><div>disks</div><div>optical</div></div><div><div>disk disk disk</div><div>disk disk disk</div><div>optical</div></div><div><div>1 - PCIe x16</div><div>2 - PCIe x16</div><div>Opt PSU</div></div></div><div><ul style="list-style-type: none">• 1U Mechanical; rack-mount only• Black color front; metal case• 17.3"W x 27.5"D x 1.75"H• 440mm W x 711.4mm D x 43mm H• 34.5 lb (15.6kg) max configuration• Toolless top cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons with pull-out Easy LED Diagnostics panel<table><tr><td>Bay 1</td><td>5.25"</td><td>0.5"</td><td>high</td><td>external</td><td>std optical</td></tr><tr><td>Bay 2</td><td>2.5"</td><td>0.6"</td><td>high</td><td>external</td><td>optional disk</td></tr><tr><td>Bay 3</td><td>2.5"</td><td>0.6"</td><td>high</td><td>external</td><td>optional disk</td></tr><tr><td>Bay 4</td><td>2.5"</td><td>0.6"</td><td>high</td><td>external</td><td>optional disk</td></tr><tr><td>Bay 5</td><td>2.5"</td><td>0.6"</td><td>high</td><td>external</td><td>optional disk</td></tr><tr><td>Bay 6</td><td>2.5"</td><td>0.6"</td><td>high</td><td>external</td><td>optional disk</td></tr><tr><td>Bay 7</td><td>2.5"</td><td>0.6"</td><td>high</td><td>external</td><td>optional disk</td></tr></table><p>Slot 1: low-profile, PCI Express 2.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x16</p></div></div>						Bay 1	5.25"	0.5"	high	external	std optical	Bay 2	2.5"	0.6"	high	external	optional disk	Bay 3	2.5"	0.6"	high	external	optional disk	Bay 4	2.5"	0.6"	high	external	optional disk	Bay 5	2.5"	0.6"	high	external	optional disk	Bay 6	2.5"	0.6"	high	external	optional disk	Bay 7	2.5"	0.6"	high	external	optional disk
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Implementation	Processor uses FC-LGA package, two LGA1366 sockets																																																									
Memory	1GB std, 128GB max (64GB per processor), RDIMM, PC3-10600 1333MHz DDR3** , Advanced ECC*** , Memory Mirroring , sixteen 240-pin DIMM sockets, standard memory in 1 socket, 15 sockets available****, eight sockets distributed into 3-channel per processor (3-3-2) ** System automatically clocks down for processor with 800MHz DDR3 memory controller *** Advanced ECC-enable DIMMs required **** Over eight DIMMs requires dual processors																																																									
Graphics	Matrox® G200e, integrated, two VGA DB-15 (front and rear), 8MB; <i>Maximum resolution: 1280x1024@60Hz</i>																																																									
Disk bays	6 hot-swap (HS) disk bays on 2.5" Slim-Form-Factor (SFF) std																																																									
Disk Controller	ServeRAID®-BR10i, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1 support																																																									
Optical	UltraSlim Enhanced DVD±RW																																																									
Diskette	None (use USB port)																																																									
Ethernet	Two Gigabit Ethernet ports, TCP/IP Offload Engine(TOE), Broadcom® 5709C operated over PCIe bus, load balancing, upgradeable to 4 int ethernet ports via optional daughter card																																																									
Chipset	Intel 5520 Chipset , Intel I/O Hub (IOH) for PCI Express slots and links to BCM5709C, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 (ICH10) for USB, PCIe links to SATA/SAS controller, LPC bus to VSC452 for limited Super I/O																																																									
Riser card	(See Right) Two PCI Express 2.0 x16 slots std, convertible via optional riser card(s) to 64-bit 133MHz PCI-X																																																									
Front ports	Two USB 2.0, external monitor (VGA DB-15)																																																									
Rear ports	Two USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45)																																																									
Internal port	One USB connector for embedded hypervisor																																																									
Diagnostics	Easy LED Diagnostics (pull-out operator information panel with information LED and system-error LED)																																																									
Systems mgmt	Integrated Management Module (IMM) std, IPMI 2.0-compliant, Trusted Platform Module (TPM) 1.2 support, upgradeable to IMM Premium																																																									
Prerequisites	Monitor, keyboard, mouse, SATA/SAS disk, rack, OS																																																									
Keyboard	None (use USB port)																																																									
Mouse	None (use USB port)																																																									
Power supply(s)	One 675 watts standard, two maximum, hot-swap, auto-sensing, redundant with two power supplies																																																									
Cooling	Six fans std, six maximum, variable speed, hot-swap																																																									
Accessories <table><tr><td>Intel Xeon Dual-Core Processor E5502</td><td>67Y0004</td></tr><tr><td>1GB PC3-10600 DDR3 1333 MHz RDIMM</td><td>67Y0014</td></tr><tr><td>2GB PC3-10600 DDR3 1333 MHz RDIMM</td><td>67Y0015</td></tr><tr><td>4GB PC3-10600 DDR3 1333 MHz RDIMM</td><td>67Y0016</td></tr><tr><td>73GB² 2.5" SAS SFF HS (15000 rpm)</td><td>67Y0115</td></tr><tr><td>146GB 2.5" SAS SFF HS (10000 rpm)</td><td>67Y0116</td></tr><tr><td>300GB 2.5" SAS SFF HS (10000 rpm)</td><td>67Y0118</td></tr><tr><td>500GB 2.5" SATA SFF HS (7200 rpm)</td><td>67Y0121</td></tr></table> Other accessories at lenovo.com/accessories																	Intel Xeon Dual-Core Processor E5502	67Y0004	1GB PC3-10600 DDR3 1333 MHz RDIMM	67Y0014	2GB PC3-10600 DDR3 1333 MHz RDIMM	67Y0015	4GB PC3-10600 DDR3 1333 MHz RDIMM	67Y0016	73GB ² 2.5" SAS SFF HS (15000 rpm)	67Y0115	146GB 2.5" SAS SFF HS (10000 rpm)	67Y0116	300GB 2.5" SAS SFF HS (10000 rpm)	67Y0118	500GB 2.5" SATA SFF HS (7200 rpm)	67Y0121																										
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Limited Warranty¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays)⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																																										
Power-On Hotkey <ul style="list-style-type: none">• Setup Utility: F1 at startup• Diagnostic: F2 at startup• Network Boot: F12 at startup																																																										
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ThinkPlus Priority Support, 90-day Trial																																																										
RoHS-compliant																																																										

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	RAID Battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Ethernet	Avail date
RD210	3796-27U	2x7	1xE5504	2.00	4	1x2GB	1333MHz	2.5"	None	6xHot-swap	SATA/SAS ⁴	0/1	None	2x675W	2xGb	May 09
RD210	3796-23U	2x7	1xE5506	2.13	4	1x2GB	1333MHz	2.5"	None	6xHot-swap	SATA/SAS	Multi*	None	2x675W	2xGb	May 09

* Multi = RAID-0/1/5/6/10/50/60 support

- **These models have a 3-year limited warranty¹**
- **Easy to use with ThinkServer EasyStartup and EasyManage software**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

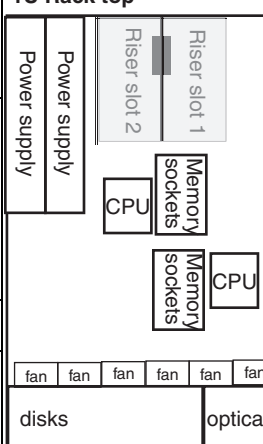
Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5504 or E5506 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 800MHz DDR3 memory controller, and 4MB cache	<div>1U Rack top</div> <div><div>Front</div><div><div><div>disk</div><div>disk</div><div>disk</div><div>optical</div></div><div><div>disk</div><div>disk</div><div>disk</div><div>optical</div></div></div><div>Rear</div><div><div><div>1 - PCIe x16</div><div>2 - PCIe x16</div><div>PSU</div></div><div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div></div><div><div>disks</div><div>optical</div></div></div><div><ul style="list-style-type: none">• 1U Mechanical; rack-mount only• Black color front; metal case• 17.3"W x 27.5"D x 1.75"H• 440mm W x 711.4mm D x 43mm H• 34.5 lb (15.6kg) max configuration• Toolless top cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons with pull-out Easy LED Diagnostics panel<div>Bay 1 5.25", 0.5" high, external, std optical</div><div>Bay 2 2.5", 0.6" high, external, optional disk</div><div>Bay 3 2.5", 0.6" high, external, optional disk</div><div>Bay 4 2.5", 0.6" high, external, optional disk</div><div>Bay 5 2.5", 0.6" high, external, optional disk</div><div>Bay 6 2.5", 0.6" high, external, optional disk</div><div>Bay 7 2.5", 0.6" high, external, optional disk</div><div>Slot 1: low-profile, PCI Express 2.0 x16</div><div>Slot 2: half-length, full-height, PCI Express 2.0 x16</div></div></div>
Implementation	Processor uses FC-LGA package, two LGA1366 sockets	
Memory	2GB std, 128GB max (64GB per processor), RDIMM, PC3-10600 1333MHz DDR3**, Advanced ECC***, Memory Mirroring , sixteen 240-pin DIMM sockets, standard memory in 1 socket, 15 sockets available****, eight sockets distributed into 3-channel per processor (3-3-2) ** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller *** Advanced ECC-enable DIMMs required **** Over eight DIMMs requires dual processors	
Graphics	Matrox® G200e, integrated, two VGA DB-15 (front and rear), 8MB; <i>Maximum resolution: 1280x1024@60Hz</i>	
Disk bays	6 hot-swap (HS) disk bays on 2.5" Slim-Form-Factor (SFF) std	
Disk Controller	27U: ServeRAID®-BR10i, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1 support 23U: ServeRAID-MR10i, PCIe bus, SATA 3Gb/s, SAS 3Gb/s, RAID 0, 1, 5, 6, 10, 50 support	
Optical	UltraSlim Enhanced DVD±RW	
Diskette	None (use USB port)	
Ethernet	Two Gigabit Ethernet ports, TCP/IP Offload Engine(TOE), Broadcom® 5709C operated over PCIe bus, load balancing, upgradeable to 4 int ethernet ports via optional daughter card	
Chipset	Intel 5520 Chipset , Intel I/O Hub (IOH) for PCI Express slots and links to BCM5709C, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 (ICH10) for USB, PCIe links to SATA/SAS controller, LPC bus to VSC452 for limited Super I/O	
Riser card	(See Right) Two PCI Express 2.0 x16 slots std, convertible via optional riser card(s) to 64-bit 133MHz PCI-X	
Front ports	Two USB 2.0, external monitor (VGA DB-15)	
Rear ports	Two USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45)	
Internal port	One USB connector for embedded hypervisor	
Diagnostics	Easy LED Diagnostics (pull-out operator information panel with information LED and system-error LED)	
Systems mgmt	Integrated Management Module (IMM) std, IPMI 2.0-compliant, Trusted Platform Module (TPM) 1.2 support, upgradeable to IMM Premium	
Prerequisites	Monitor, keyboard, mouse, SATA/SAS disk, rack, OS	
Keyboard	None (use USB port)	
Mouse	None (use USB port)	
Power supply(s)	Two 675 watts standard, two maximum, hot-swap, auto-sensing, redundant with two power supplies	
Cooling	Six fans std, six maximum, variable speed, hot-swap	
Accessories Intel Xeon Dual-Core Processor E5504 67Y0007 2GB PC3-10600 DDR3 1333 MHz RDIMM 67Y0015 300GB ² 2.5" SAS SFF HS (10000 rpm) 67Y0118 500GB 2.5" SATA SFF HS (7200 rpm) 67Y0121 Other accessories at lenovo.com/accessories		
Max internal capacity 3.0TB with six 500GB SATA SFF disks		
Limited Warranty¹ ⇒ 3-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays) ⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty • Onsite service upgrade options (in eligible locations) ⁷ • Post warranty maintenance services ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378		

See footnotes for important warranty information
US models announced May 5, 2009

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	RAID Battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Ethernet	Avail date
RD210	3796-2CU	2x7	1xE5540	2.53	4	2x2GB	1333MHz	2.5"	Battery	6xHot-swap	SATA/SAS ⁴	Multi*	Premium	2x675W	2xGb	May 09

* Multi = RAID-0/1/5/6/10/50/60 support

- **This model has a 3-year limited warranty¹**
- **Easy to use with ThinkServer EasyStartup and EasyManage software**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Processor(s)	Up to two processors, one processors standard, Intel® Xeon® Processor E5540 with quad-core , 5.86GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 1066MHz DDR3 memory controller, and 8MB cache	<div>1U Rack top</div> <div></div> <div>• 1U Mechanical; rack-mount only • Black color front; metal case • 17.3"W x 27.5"D x 1.75"H • 440mm W x 711.4mm D x 43mm H • 34.5 lb (15.6kg) max configuration • Toolless top cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons with pull-out Easy LED Diagnostics panel</div> <div>Bay 1 5.25", 0.5" high, external, std optical Bay 2 2.5", 0.6" high, external, optional disk Bay 3 2.5", 0.6" high, external, optional disk Bay 4 2.5", 0.6" high, external, optional disk Bay 5 2.5", 0.6" high, external, optional disk Bay 6 2.5", 0.6" high, external, optional disk Bay 7 2.5", 0.6" high, external, optional disk</div> <div>Slot 1: low-profile, PCI Express 2.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x16</div>
Implementation	Processor uses FC-LGA package, two LGA1366 sockets	
Memory	4GB std, 128GB max (64GB per processor), RDIMM, PC3-10600 1333MHz DDR3**, Advanced ECC***, Memory Mirroring , sixteen 240-pin DIMM sockets, std memory in 1 socket, 15 sockets available****, eight sockets distributed into 3-channel per processor (3-3-2) ** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller ***Advanced ECC-enable DIMMs required **** Over eight DIMMs requires dual processors	
Graphics	Matrox® G200e, integrated, two VGA DB-15 (front and rear), 8MB; <i>Maximum resolution: 1280x1024@60Hz</i>	
Disk bays	6 hot-swap (HS) disk bays on 2.5" Slim-Form-Factor (SFF) std	
Disk Controller	ServeRAID®-MR10i, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1, 5, 6, 10, 50 support, Battery backed cache integrated	
Optical	UltraSlim Enhanced DVD±RW	
Diskette	None (use USB port)	
Ethernet	Two Gigabit Ethernet ports, TCP/IP Offload Engine(TOE), Broadcom® 5709C operated over PCIe bus, load balancing, upgradeable to 4 int ethernet ports via optional daughter card	
Chipset	Intel 5520 Chipset , Intel I/O Hub (IOH) for PCI Express slots and links to BCM5709C, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 (ICH10) for USB, PCIe links to SATA/SAS controller, LPC bus to VSC452 for limited Super I/O	
Riser card	(See Right) Two PCI Express 2.0 x16 slots std, convertible via optional riser card(s) to 64-bit 133MHz PCI-X	
Front ports	Two USB 2.0, external monitor (VGA DB-15)	
Rear ports	Two USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45)	
Internal port	One USB connector for embedded hypervisor	
Diagnostics	Easy LED Diagnostics (pull-out operator information panel with information LED and system-error LED)	
Systems mgmt	Integrated Management Module (IMM) Premium, IPMI 2.0-compliant, Trusted Platform Module (TPM) 1.2 support	
Prerequisites	Monitor, keyboard, mouse, SATA/SAS disk, rack, OS	
Keyboard	None (use USB port)	
Mouse	None (use USB port)	
Power supply(s)	Two 675 watts standard, two maximum, variable speed fan, hot-swap, auto-sensing, redundant with two power supplies	
Cooling	Six fans std, six maximum, variable speed, hot-swap	
Accessories Intel Xeon Quad-Core Processor E5540 67Y0096 73GB ² 2.5" SAS SFF HS (15000 rpm) 67Y0115 146GB 2.5" SAS SFF HS (10000 rpm) 67Y0116 300GB 2.5" SAS SFF HS (10000 rpm) 67Y0118 500GB 2.5" SATA SFF HS (7200 rpm) 67Y0121 Other accessories at lenovo.com/accessories		
Max internal capacity 3.0TB with six 500GB SATA SFF disks		
Virtualization Virtualization ready, hypervisor connector embedded		
Limited Warranty¹ ⇒ 3-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays) ⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty • Onsite service upgrade options (in eligible locations) ⁷ • Post warranty maintenance services ⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378		

See footnotes for important warranty information
US model announced May 5, 2009

* Multi = RAID-0/1/5/6/10/50/60 support

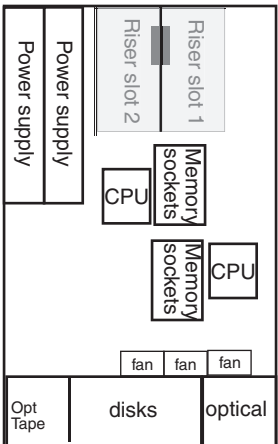
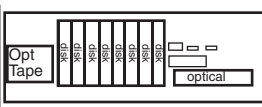
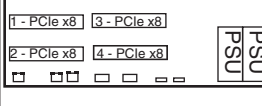
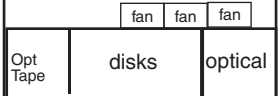
- **These models have a 3-year limited warranty¹**
- **Easy to use with ThinkServer EasyStartup and EasyManage software**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

See footnotes for important warranty information
US models announced May 5, 2009

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	RAID Battery	Disk bays	Disk type	RAID Int	IMM Premium	Power supply(s)	Ethernet	Avail date
RD220	3798-13U	4x10	1xE5506	2.13	4	1x2GB	1333MHz	2.5"	None	8xHot-swap	SATA/SAS ⁴	Multi*	None	2x675W	2xGb	May 09

* Multi = RAID-0/1/5/6/10/50/60 support

- **This model has a 3-year limited warranty¹**
- **Easy to use with ThinkServer EasyStartup and EasyManage software**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5506 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 800MHz DDR3 memory controller, and 4MB cache																																										
Implementation	Processor uses FC-LGA package, two LGA1366 sockets																																										
Memory	2GB std, 128GB max (64GB per processor), RDIMM, PC3-10600 1333MHz DDR3**, Advanced ECC***, Memory Mirroring , sixteen 240-pin DIMM sockets, std memory in 1 socket, 15 sockets available****, eight sockets distributed into 3-channel per processor (3-3-2) ** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller ***Advanced ECC-enable DIMMs required **** Over eight DIMMs requires dual processors																																										
Graphics	Matrox® G200e, integrated, two VGA DB-15 (front and rear), 16MB; <i>Maximum resolution: 1280x1024@60Hz</i>																																										
Disk bays	8 hot-swap (HS) disk bays on 2.5" Slim-Form-Factor (SFF) std																																										
Disk Controller	ServeRAID®--MR10i, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1, 5, 6, 10, 50, 60 support																																										
Tape backup	Optional, internal/external, 3.5", USB or SATA via disk controller																																										
Optical	UltraSlim Enhanced DVD±RW																																										
Diskette	None (use USB port)																																										
Ethernet	Two Gigabit Ethernet ports, Broadcom® 5709C, PCI Express bus, TCP/IP Offload Engine(TOE), load balancing, upgradeable to 4 int ethernet ports via optional daughter card																																										
Chipset	Intel 5520 Chipset , Intel I/O Hub (IOH) for PCI Express slots and links to BCM5709C, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 (ICH10) for USB, PCIe links to SATA/SAS controller, LPC bus to VSC452 for limited Super I/O																																										
Riser card	(See Right) Four PCI Express 2.0 x8 slots std, convertible via optional riser card(s) to 64-bit 133MHz PCI-X																																										
Front ports	Two USB 2.0, external monitor (VGA DB-15)																																										
Rear ports	Two USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45), One USB connector for embedded hypervisor																																										
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Diagnostics	Easy LED Diagnostics (pull-out operator information panel with information LED and system-error LED)																																										
Systems mgmt	Integrated Management Module (IMM) std, IPMI 2.0-compliant, Trusted Platform Module (TPM) 1.2 support, upgradeable to IMM Premium																																										
Prerequisites	Monitor, keyboard, mouse, SATA/SAS disk, rack, OS																																										
Keyboard	None (use USB port)																																										
Mouse	None (use USB port)																																										
Power supply(s)	Two 675 watts standard, two maximum, variable speed fan, hot-swap, auto-sensing, redundant with two power supplies																																										
Cooling	Three fans std, three maximum, variable speed, hot-swap																																										
Accessories Intel Xeon Quad-Core Processor E5506 67Y0005 2GB PC3-10600 DDR3 1333 MHz RDIMM 67Y0015 300GB ² 2.5" SAS SFF HS (10000 rpm) 67Y0118 500GB 2.5" SATA SFF HS (7200 rpm) 67Y0121 USB Portable Diskette Drive 05K9276 Lenovo® TV L151 15-inch Analog TFT Monitor 9165AC6 Other accessories at lenovo.com/accessories																																											
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		2U Rack top																																									
		Front																																									
		Rear																																									
		<ul style="list-style-type: none">• 2U Mechanical; rack-mount only• Black color front; metal case• 17.5"W x 27.5"D x 3.36"H• 443.6mm W x 698mm D x 85.4mm H• 65 lb (29.5kg) max configuration• Toolless top cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons with pull-out Easy LED Diagnostics panel																																									
		<table><tr><td>Bay 1</td><td>5.25", 0.5" high,</td><td>external,</td><td>std optical</td></tr><tr><td>Bay 2</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 3</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 4</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 5</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 6</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 7</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 8</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 9</td><td>2.5", 0.6" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 10</td><td>3.5", 1.6" high,</td><td>external,</td><td>optional tape</td></tr></table>		Bay 1	5.25", 0.5" high,	external,	std optical	Bay 2	2.5", 0.6" high,	external,	optional disk	Bay 3	2.5", 0.6" high,	external,	optional disk	Bay 4	2.5", 0.6" high,	external,	optional disk	Bay 5	2.5", 0.6" high,	external,	optional disk	Bay 6	2.5", 0.6" high,	external,	optional disk	Bay 7	2.5", 0.6" high,	external,	optional disk	Bay 8	2.5", 0.6" high,	external,	optional disk	Bay 9	2.5", 0.6" high,	external,	optional disk	Bay 10	3.5", 1.6" high,	external,	optional tape
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		Power-On Hotkey <ul style="list-style-type: none">• Setup Utility: F1 at startup• Diagnostic: F2 at startup• Network Boot: F12 at startup																																									
		Software Management Tools <ul style="list-style-type: none">• ThinkServer EasyStartup• ThinkServer EasyManage																																									
		Security <ul style="list-style-type: none">• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)																																									
		ThinkPlus Priority Support, 90-day Trial																																									
		RoHS-compliant																																									

See footnotes for important warranty information
US model announced May 5, 2009

Partial list of accessories supported on Lenovo® ThinkServer TD200, TD200x, RD210, RD220

ThinkServer Ready accessories are available through Lenovo Business Partners. Locate a Business Partner near you at: bplocator.lenovo.com

Processors⁵⁵**TD200:**

Intel® Xeon® Dual-Core Processor E5502	67Y0008	ann	10/06/09
Intel Xeon Quad-Core Processor E5504	67Y0009	ann	10/06/09
Intel Xeon Quad-Core Processor E5506	67Y0010	ann	10/06/09

TD200x:

Intel Xeon Quad-Core Processor E5520	67Y0011	ann	06/30/09
Intel Xeon Quad-Core Processor E5530	67Y0102	ann	06/30/09
Intel Xeon Quad-Core Processor E5540	67Y0103	ann	03/02/10

RD210, RD220:

Intel Xeon Dual-Core Processor E5502	67Y0004	ann	05/05/09
Intel Xeon Quad-Core Processor E5504	67Y0007	ann	05/05/09
Intel Xeon Quad-Core Processor E5506	67Y0005	ann	05/05/09
Intel Xeon Quad-Core Processor E5520	67Y0006	ann	05/05/09
Intel Xeon Quad-Core Processor E5540	67Y0096	ann	05/05/09

⁵⁵ Additional Processor must match the existing processor

Memory

1GB PC3-10600 DDR3 ECC RDIMM	67Y0014	ann	05/05/09
2GB PC3-10600 DDR3 ECC RDIMM	67Y0015	ann	05/05/09
4GB PC3-10600 DDR3 ECC RDIMM	67Y0016	ann	05/05/09

Backup**All:**

IBM® RDX 160GB Cartridge	67Y0169	ann	11/10/09
IBM RDX 320GB Cartridge	67Y0170	ann	11/10/09
IBM RDX 500GB Cartridge	67Y0171	ann	11/10/09

RD210, RD220:

IBM LTO Generation 3 5-Pack Media	67Y1379	ann	11/10/09
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ThinkServer IBM RAID controller

SAS 3Gb HBA Controller V2	67Y0183	ann	11/10/09
ServeRAID® M1015	67Y1368	ann	12/08/09
ServeRAID M5015	67Y0184	ann	11/10/09
ServeRAID M5014	67Y0185	ann	11/10/09
ServeRAID M1000 Series Adv Feature Key	67Y1369	ann	12/08/09
ServeRAID M5000 Series Battery Kit	67Y0186	ann	11/10/09
ServeRAID M5000 Series Adv Feature Key	67Y0188	ann	12/08/09

Connectivity

IBM 8Gb FC Single-port HBA by QLogic®	67Y0172	ann	11/10/09
IBM 8Gb FC Dual-port HBA by QLogic	67Y0173	ann	11/10/09
IBM 8Gb FC Single-port HBA by Emulex®	67Y0174	ann	11/10/09
IBM 8Gb FC Dual-port HBA by Emulex	67Y0175	ann	11/10/09
IBM 8Gb FC Single-port HBA by Brocade®	67Y0176	ann	11/10/09
IBM 8Gb FC Dual-port HBA by Brocade	67Y0177	ann	11/10/09

Keyboard

Preferred Pro USB Keyboard	73P5220	ann	06/21/05
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Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
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Disk Drive**All:****2.5" SAS Hot-swap (HS):**

73GB 2.5" SAS SFF HS (15000 rpm)	67Y0115	ann	05/05/09
146GB 2.5" SAS SFF HS (10000 rpm)	67Y0116	ann	05/05/09
146GB 2.5" SAS SFF HS (15000 rpm)	67Y0117	ann	05/05/09
300GB 2.5" SAS SFF HS (10000 rpm)	67Y0118	ann	05/05/09

2.5" SATA HS:

300GB 2.5" SATA SFF HS (10000 rpm)	67Y0002	ann	05/05/09
160GB 2.5" SATA SFF HS (7200 rpm)	67Y0120	ann	09/08/09
500GB 2.5" SATA SFF HS (7200 rpm)	67Y0121	ann	09/08/09

3.5" SAS HS:

146GB 3.5" SAS HS (15000 rpm)	45J6211	ann	09/30/08
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3.5" SATA HS:

160GB 3.5" SATA HS (7200 rpm)	45J6200	ann	09/30/08
250GB 3.5" SATA HS (7200 rpm)	45J6201	ann	09/30/08
500GB 3.5" SATA HS (7200 rpm)	45J6202	ann	09/30/08
750GB 3.5" SATA HS (7200 rpm)	45J6203	ann	09/30/08
1TB 3.5" SATA HS (7200 rpm)	45J6204	ann	09/30/08

3.5" SATA Simple-swap:

160GB 3.5" SATA Simple-swap (7200 rpm)	45J6195	ann	09/30/08
250GB 3.5" SATA Simple-swap (7200 rpm)	45J6196	ann	09/30/08
500GB 3.5" SATA Simple-swap (7200 rpm)	45J6197	ann	09/30/08
750GB 3.5" SATA Simple-swap (7200 rpm)	45J6198	ann	09/30/08

TD200:**3.5" 6Gb/s SAS HS:**

300GB 3.5" SAS HS (15000 rpm)	67Y1384	ann	01/26/10
450GB 3.5" SAS HS (15000 rpm)	67Y1385	ann	01/26/10
600GB 3.5" SAS HS (15000 rpm)	67Y1386	ann	01/26/10

For more information on server accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/thinkserveraccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Partial list of Lenovo® ThinkPlus Services for ThinkServer TD200, TD200x, RD210, RD220

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html**Training classes**

- The basics on components, diagnostics, troubleshooting, and managing Lenovo servers, delivered in interactive online format

Online Training, Understanding Lenovo Servers	45K4080
Online Training, Understanding Systems Management	45K4081
Installation, ThinkServer Hardware Only	45K4082

ThinkPlus service upgrade options⁷*LOR = Lenovo Onsite Repair***TD200, TD200x with 1-year warranty**

3-year LOR 9x5 Next Business Day	45K4062
3-year LOR 9x5 4 hour response	45K4063
4-year LOR 9x5 Next Business Day	51J0731
4-year LOR 9x5 4 hour response	51J0732
5-year LOR 9x5 Next Business Day	51J0733
5-year LOR 9x5 4 hour response	51J0734

TD200, TD200x with 3-year warranty

3-year LOR 9x5 4 hour response	45K4066
4-year LOR 9x5 Next Business Day	51J0735
4-year LOR 9x5 4 hour response	51J0736
5-year LOR 9x5 Next Business Day	51J0737
5-year LOR 9x5 4 hour response	51J0738

RD210, RD220 with 1-year warranty

3-year LOR 9x5 Next Business Day	45K5305
3-year LOR 9x5 4 hour response	45K5306
4-year LOR 9x5 Next Business Day	51J0747
4-year LOR 9x5 4 hour response	51J0748
5-year LOR 9x5 Next Business Day	51J0749
5-year LOR 9x5 4 hour response	51J0750

RD210, RD220 with 3-year warranty

3-year LOR 9x5 4 hour response	45K4076
4-year LOR 9x5 Next Business Day	51J0751
4-year LOR 9x5 4 hour response	51J0752
5-year LOR 9x5 Next Business Day	51J0753
5-year LOR 9x5 4 hour response	51J0754

Lenovo Online Data Backup

- Secure offsite data storage
- 256-bit Advanced Encryption System
- Data recovery or access in case of an unforeseen event
- Automatic, remote management
- Choose which business critical data to back up

1-year 25GB Server Lenovo Online Data Backup (US)	45K2115
1-year 50GB Server Lenovo Online Data Backup (US)	45K2116
1-year 100GB Server Lenovo Online Data Backup (US)	45K2117

ThinkPlus Priority Support

- 9x5 Next Business Day response Lenovo Onsite Repair
- 24x7 4-hour response Lenovo Onsite Repair (for Priority 4 Support)
- 24x7 support with priority routing and advanced level technicians

TD200, TD200x with 1-year warranty

3-year Priority Support	45K4064
3-year Priority 4 Support	45K4065

TD200, TD200x with 3-year warranty

3-year Priority Support	45K4067
3-year Priority 4 Support	45K4068

RD210, RD220 with 1-year warranty

3-year Priority Support	45K5307
3-year Priority 4 Support	45K5308

RD210, RD220 with 3-year warranty

3-year Priority Support	45K4077
3-year Priority 4 Support	45K4078

ThinkPlus Priority Support with Hard Disk Drive Retention

- 9x5 Next Business Day response Lenovo Onsite Repair
- 24x7 4-hour response Lenovo Onsite Repair (for Priority 4 Support)
- 24x7 support with priority routing and advanced level technicians
- Hard Disk Drive Retention (HDDR) means customer keeps disk

*HDDR = Hard Disk Drive Retention***TD200, TD200x with 1-year warranty**

3-year Priority Support with HDDR	45K5445
3-year Priority 4 Support with HDDR	45K5446

TD200, TD200x with 3-year warranty

3-year Priority Support with HDDR	45K5447
3-year Priority 4 Support with HDDR	45K5448

RD210, RD220 with 1-year warranty

3-year Priority Support with HDDR	45K5453
3-year Priority 4 Support with HDDR	45K5454

RD210, RD220 with 3-year warranty

3-year Priority Support with HDDR	45K5455
3-year Priority 4 Support with HDDR	45K5456

ThinkPlus Productivity

- Priority Support
- Online Training, Understanding Lenovo Servers
- One-time hardware installation

3-year ThinkPlus Productivity, TD200, TD200x (1-year)	45K4088
3-year ThinkPlus Productivity, TD200, TD200x (3-year)	45K4090
3-year ThinkPlus Productivity, RD210, RD220 (1-year)	45K5309
3-year ThinkPlus Productivity, RD210, RD220 (3-year)	45K4096

Microsoft® Windows Server® for Lenovo ThinkServer

(ROK = Reseller Option Kits)

All Lenovo ThinkServer:

English language

Essential Business Server 2008 Standard ROK	84978IE
Essential Business Server 2008 Premium ROK	84978JE
Small Business Server 2008 Std SP2 ROK (64, 4GB) ⁶¹	84978ME
Small Business Server 2008 Premium SP2 ROK (64, 4GB)	84978NE
Server 2008 R2 Standard ROK (64) ⁶²	84978KE
Server 2008 R2 Enterprise ROK (64)	84978LE

French language

Server 2008 Standard ROK (32, 64) ⁶⁰	84978BF
Server 2008 Enterprise ROK (32, 64)	84978DF
Small Business Server 2008 Standard SP2 ROK (64, 4GB)	84978MF

Spanish language

Server 2008 Standard ROK (32, 64)	84978BS
Server 2008 Enterprise ROK (32, 64)	84978DS

German language

Server 2008 Standard ROK (32, 64)	84978BG
Server 2008 Enterprise ROK (32, 64)	84978DG
Server 2008 R2 Standard ROK (64)	84978KG
Server 2008 R2 Enterprise ROK (64)	84978LG

Multi-Language (English/Japanese)

Server 2008 R2 Standard ROK (64)	84978OA
Server 2008 R2 Enterprise ROK (64)	84978PA

Multi-Language (English/French/Italian/German/Spanish)

Server 2008 R2 Standard ROK (64)	84978OE
Server 2008 R2 Enterprise ROK (64)	84978PE

TS200, RS210:

Multi-Language (English/Japanese)

Server 2008 R2 Foundations ROK (64)	84978HA
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Multi-Language (English/French/Italian/German/Spanish)

Server 2008 R2 Foundations ROK (64)	84978HE
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⁶⁰ 32, 64 = available in both 32-bit and 64-bit

⁶¹ 64, 4GB = available in 64-bit only, 4GB memory required

⁶² 64 = available in 64-bit only

Microsoft Windows Client Access License(s)

Multi-Language

Server 2008 1 user	849781A
Server 2008 5 user	849785A
Server 2008 Terminal Services 5 user	849785B
Essential Business Server 2008 Standard 5 user	849785E
Essential Business Server 2008 Standard 20 user	849782E
Essential Business Server 2008 Premium 5 user	849785F
Essential Business Server 2008 Premium 20 user	849782F
Small Business Server 2008 Standard 1 user	849781C
Small Business Server 2008 Standard 5 user	849785C
Small Business Server 2008 Premium 1 user	849781D
Small Business Server 2008 Premium 5 user	849785D

Novell® Server Software - SLES for Lenovo ThinkServer

(SLES = SUSE® Linux® Enterprise Server)

1-year SLES plus 1-year Standard support	55Y7037
1-year SLES plus 1-year Priority support	55Y7038
3-year SLES plus 3-year Standard support	55Y7039
3-year SLES plus 3-year Priority support	55Y7040

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC, 27709, Attn: Dept ZPYA/B600. Lenovo makes no representation or warranty regarding third party products or services.

¹ **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

² **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less.

³ **Systems with limited onsite service** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges.

⁴ **SATA/SAS:** The system configuration supports the installation of either SATA or SAS disks. A configuration including both SATA and SAS disks is not supported.

⁷ **ThinkPlus Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

⁸ **RAID:** Supported RAID levels for a system will vary from the stated capabilities of the RAID controller due to dependencies on the number and capacity of physical disks in the system and on customer requirements for performance, fault tolerance, or data redundancy.

RAID levels and requirements:

- **RAID 0 (striping)** provides increased performance by writing data across multiple drives.
- **RAID 1 (mirroring)** provides fault tolerance by writing the data on two drives.
- **RAID 5 (striping with parity)** uses distributed parity data to provide fault tolerance more efficiently than RAID 1. Requires three or more drives.
- **RAID 6 (striped set with dual distributed parity)** provides fault tolerance from two drive failures; array continues to operate with up to two failed drives. Requires four drives.
- **RAID 10 (or RAID 1+0)** combines RAID 1 and RAID 0 to create a stripe of mirrors that is fault tolerant while offering increased performance. Requires four drives.
- **RAID 50 (or RAID 5+0)** combines RAID 5 and RAID 0 to create block-level striping with distributed parity improving performance over RAID 5. Requires six drives.
- **RAID 60 (or RAID 6+0)** combines RAID 6 and RAID 0 to create block-level striping with distributed double parity improving performance over RAID 6. Requires eight drives.

¹⁴ **Response times may vary.** May exclude some holidays. Telephone support may be subject to additional charges.

ThinkServer™

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Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

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Morrisville, NC 27560
U.S.A.

April 2010
svbook.pdf



Personal Systems Reference

Lenovo® Secure Managed Client Storage Array Appliance

- *the centralized data repository for the Secure Managed Client (SMC) alternative client computing solution*

April 2010 - Version 376



Visit www.lenovo.com/psref for the latest version

Lenovo® SMC Storage Array



Lenovo SMC Storage Array - Front

*12 x 3.5" high capacity Hot-swap SATA disk drives
6, 9, and 12TB* raw storage capacities
Hardware-based RAID 5 protection of storage data*



Lenovo SMC Storage Array - Rear

*Supporting 6 gigabit ethernet ports (2 integrated, 4 provided by dual NIC PCIe add-in cards)
Redundant power supply on selected models*

Lenovo® SMC Storage Array (8332)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Boot disks	Storage disks	Disk controller	RAID*	Optical	Power supply(s)	Ethernet	Global	Avail date
SMC-SAN	8332-11U	6x14	1xE5205	1.86	2	2x1GB 667MHz	2x120GB ²	2x120GB	12x500GB	SATA	1/5	None	1x850W	6xGB	Gbl	Jun 09
SMC-SAN	8332-12U	6x14	1xE5205	1.86	2	2x1GB 667MHz	2x120GB	12x750GB	12x750GB	SATA	1/5	None	1x850W	6xGB	Gbl	Jun 09
SMC-SAN	8332-13U	6x14	1xE5205	1.86	2	2x1GB 667MHz	2x120GB	12x1000GB	12x1000GB	SATA	1/5	None	1x850W	6xGB	Gbl	Jun 09
SMC-SAN	8332-14U	6x14	1xE5205	1.86	2	2x1GB 667MHz	2x120GB	12x500GB	12x500GB	SATA	1/5	None	2x850W	6xGB	Gbl	Jun 09
SMC-SAN	8332-15U	6x14	1xE5205	1.86	2	2x1GB 667MHz	2x120GB	12x750GB	12x750GB	SATA	1/5	None	2x850W	6xGB	Gbl	Jun 09
SMC-SAN	8332-16U	6x14	1xE5205	1.86	2	2x1GB 667MHz	2x120GB	12x1000GB	12x1000GB	SATA	1/5	None	2x850W	6xGB	Gbl	Jun 09

* Two boot disk drives in RAID[®] 1, twelve storage disk drives in RAID 5

- Enterprise-class storage capabilities, supporting up to 12 terabytes of storage
- Proven Intel® design quality and durability

Processor(s)	One processor standard, Intel Xeon® Processor E5205 with dual-core , 1066MHz system bus, and 6MB L2 cache Processor uses FC-LGA package, two LGA771 socket	<div><div>2U Rack top</div><div><div><div>6 low-profile slots</div><div>2 boot Drives</div><div>fanfanfanfanfanfan</div><div>12 storage drives</div></div><div><div>8 memory sockets</div><div>CPU</div></div><div>2 Power Supplies</div></div><div><div>Front</div><div>12 storage disks</div><div>Rear</div><div><div>PSU1</div><div>PSU2</div><div>PCI-XPCI-XPCI-XPCI-XPCI-XPCI-XPCI-XPCI-X</div></div></div></div>
Implementation		
Memory	2GB std, 32GB max, PC2-5300 667MHz DDR2, ECC , fully buffered, eight 240-pin DIMM sockets; std memory in two sockets, six sockets available**, ** DIMMs must be installed in matched pairs	
Graphics	ATI™ ES1000, integrated, 16MB, one VGA DB-15 connector; <i>Maximum resolution: 1600x1200@52Hz</i>	
Disk bays	Two 2.5" internal disk bays for boot drives (non hot-swap) twelve hot-swap (HS) 3.5" external disk bays for storage drives	
Disk Controller	Intel SRCATAWB RAID card, LSI Logic® 1078 SAS ROC I/O processor integrated, PCI Express® bus, SATA 3Gb/s	
SATA disk(s)	<i>Boot drive:</i> 120GB , 5400 rpm, 2.5" <i>Storage drive:</i> 500GB, 750GB , or 1000GB , 7200 rpm, 3.5"	
Chipset	Intel 5000P Chipset , Intel ESB2-E I/O Controller Hub, National Semiconductor PC87427 Super I/O	
Ethernet	Six Gigabit Ethernet ports via three ethernet controllers, with two ports per ethernet controller (one ethernet controller integrated, two ethernet controllers on two add-in cards), Intel I/O Acceleration Technology, <i>Integrated:</i> Intel 82563EB dual gigabit ports PHY, Low pin count, high speed interface to Intel ESB2-E, <i>Add-in card:</i> Intel 82571GB dual gigabit ports controller	
Expansion slots	(See Right) Two PCI Express 2.0 x8 slots, two PCI Express 2.0 x4 slots, one 64-bit 100MHz PCI-X slot, low-profile add-in cards only	
Front panel	One 5-pin Mini USB, Power button, Reset button, ID button	
Rear panel	Four USB 2.0 connectors, external monitor (VGA DB-15), serial (9-pin), six ethernet (RJ-45), keyboard (PS2), mouse(PS2), ID LED	
Diagnostics	Fault LED, disk LED, fan LED	
Power supply(s)	One or two power supplies, two maximum, variable speed fan, hot-swap, auto-sensing, redundant with two power supplies <i>11U/12U/13U:</i> One 850-watt Power supply, <i>14U/15U/16U:</i> Two 850-watt Power supplies	
Cooling	Ten system fans std for cooling disk drives, baseboard and disk controller, ten maximum, variable speed, hot-swap	
Limited warranty ¹	3-years limited onsite service ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, service upgrades available	
RoHS-compliant		
Max storage capacity	12TB with twelve 1000GB SATA disks	
Supportable Client Desktop PCs	Lenovo ThinkCentre® M58p with Intel vPro™ Technology, all form factors Lenovo ThinkCentre M57p with Intel vPro Technology, Eco Ultra Small form factor only	
Power-On Hotkey	• Setup Utility: F2 at startup • Diagnostic: ESC at startup • Network Boot: F12 at startup	
Security	• Power-on password • Administrator password • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all)	

See footnotes for important warranty information

US models announced May 26, 2009

SMC-SAN models withdrawn effective January 2010

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Software Offerings - Required Software	Software Offerings - Add-on Software
<p>SMC Workgroup Client</p> <ul style="list-style-type: none"> • User/Image Provisioning and Management • Executive Dashboard • Intel® vPro Management • Storage Array Configuration and Management • Optional Windows PC Management Functions • One Licence per SMC Client <p>SMC Workgroup Professional Client</p> <ul style="list-style-type: none"> • All SMC Workgroup Client features PLUS • Patch Management • One Licence per SMC Client <p>SMC Enterprise Client</p> <ul style="list-style-type: none"> • All SMC Workgroup Professional Client features PLUS • Port and Media Device Control • Application white/blacklist • Application blocking • Spyware removal • Network access control • One Licence per SMC Client 	<p>Lenovo Analytics Manager</p> <ul style="list-style-type: none"> • Measure application performance and end-user response times on a company level • The product is free to use on SMC and Lenovo PC clients • Requires separate download and registration at www.serden.com/lenovo <p>Lenovo Power Analyzer</p> <ul style="list-style-type: none"> • Delivers central reports on overall power consumption of the ThinkCentre, ThinkPad or SMC device based • Capture battery status for all users using a Lenovo ThinkPad. • Free to use on SMC and Lenovo PC clients • Requires a separate download and registration at www.serden.com/lenovo <p>InteractES® for ThinkVantage® Technologies Module</p> <ul style="list-style-type: none"> • Effective analysis of IT environment • End-to-end including the client, server and the network • Dynamic trend information • Compatible with Lenovo and non-Lenovo products. • One license per client <p>More information at www.serden.com/lenovo</p> <p>StorTrends® - iTX Snapshot Assisted Replication Module</p> <ul style="list-style-type: none"> • Enable asynchronously replicate two or more Lenovo SMC Storage Array appliances over a Local Area Network or Wide Area Network • One licence per storage array appliance <p>StorTrends - iTX Sync Replication Module</p> <ul style="list-style-type: none"> • Enable synchronous replication between two Lenovo Storage Arrays over a Local Area Network • One licence is required per storage array appliance. <p>StorTrends - Kiosk/Pristine Boot Module</p> <ul style="list-style-type: none"> • Enable pristine image capability as well as a single image • Help eliminate contamination of an IT managed images • Resetting the users image to a pristine state everytime the SMC client is rebooted • One licence per storage array appliance <p>LANDesk® Application Virtualization Module</p> <ul style="list-style-type: none"> • Minimize the need for application patching • Compatible with Lenovo and non-Lenovo products <p>More information at www.landesk.com/lenovo</p> <p>For more information on Lenovo's alternative client computing, please visit: http://www.lenovo.com/acc</p>

For more information see:
<http://www.lenovo.com/acc>

PMA = Purchase Maintenance Agreement

SMC Workgroup Client

SMC Workgroup Client Subscription

SMC Workgroup Client 10-999	8336A00
SMC Workgroup Client 1000-4999	8336A01
SMC Workgroup Client 5000-19999	8336A02
SMC Workgroup Client 20000+	8336A03

SMC Workgroup Client Purchase*

SMC Workgroup Client 10-999	43N0511
SMC Workgroup Client 10-999 PMA	8336A12
SMC Workgroup Client 1000-4999	43N0513
SMC Workgroup Client 1000-4999 PMA	8336A13
SMC Workgroup Client 5000-19999	43N0515
SMC Workgroup Client 5000-19999 PMA	8336A14
SMC Workgroup Client 20000+	43N0517
SMC Workgroup Client 20000+ PMA	8336A15

SMC Workgroup Professional Client

SMC Workgroup Professional Client Subscription

SMC Workgroup Professional Client 10-999	8336A25
SMC Workgroup Professional Client 1000-4999	8336A26
SMC Workgroup Professional Client 5000-19999	8336A27
SMC Workgroup Professional Client 20000+	8336A28

SMC Workgroup Professional Client Purchase*

SMC Workgroup Professional Client 10-999	55Y2714
SMC Workgroup Professional Client 10-999 PMA	8336A29
SMC Workgroup Professional Client 1000-4999	55Y2715
SMC Workgroup Professional Client 1000-4999 PMA	8336A30
SMC Workgroup Professional Client 5000-19999	55Y2716
SMC Workgroup Professional Client 5000-19999 PMA	8336A31
SMC Workgroup Professional Client 20000+	55Y2717
SMC Workgroup Professional Client 20000+ PMA	8336A32

SMC Enterprise Client

SMC Enterprise Client Subscription

SMC Enterprise Client 10-999	8336A04
SMC Enterprise Client 1000-4999	8336A05
SMC Enterprise Client 5000-19999	8336A06
SMC Enterprise Client 20000+	8336A07

SMC Enterprise Client Purchase*

SMC Enterprise Client 10-999	43N0519
SMC Enterprise Client 10-999 PMA	8336A16
SMC Enterprise Client 1000-4999	43N0521
SMC Enterprise Client 1000-4999 PMA	8336A17
SMC Enterprise Client 5000-19999	43N0523
SMC Enterprise Client 5000-19999 PMA	8336A18
SMC Enterprise Client 20000+	43N0525
SMC Enterprise Client 20000+ PMA	8336A19

Upgrade: SMC Workgroup Client to SMC Enterprise Client

SMC Enterprise Client Subscription

SMC Enterprise Client 10-999	43N0507
SMC Enterprise Client 1000-4999	43N0508
SMC Enterprise Client 5000-19999	43N0509
SMC Enterprise Client 20000+	43N0510

SMC Enterprise Client Purchase*

SMC Enterprise Client 10-999	43N0527
SMC Enterprise Client 10-999 PMA	43N0528
SMC Enterprise Client 1000-4999	43N0529
SMC Enterprise Client 1000-4999 PMA	43N0530
SMC Enterprise Client 5000-19999	43N0531
SMC Enterprise Client 5000-19999 PMA	43N0532
SMC Enterprise Client 20000+	43N0533
SMC Enterprise Client 20000+ PMA	43N0534

Add-on SMC Software Applications

Plug-in Purchase

StorTrends® - iTX Async/Pristine Bundle	8336A33
StorTrends - iTX Snapshot Assisted Replication Module	8336A34
StorTrends - iTX Sync Replication Module	8336A36
StorTrends - Kiosk/Pristine Boot	8336A37

* If Purchase is selected, the corresponding Purchase Maintenance Agreement (PMA) part number must also be selected

Partial list of Lenovo ThinkPlus Services for Lenovo SMC Storage Array

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html

ThinkPlus service upgrade options⁷

LOR = Lenovo Onsite Repair

Lenovo SMC Storage Array with 3-year warranty

3-year LOR 24x7 4-hour response	55Y3321
4-year LOR 9x5 Next Business Day	55Y3319
4-year LOR 24x7 4-hour response	55Y3322
5-year LOR 9x5 Next Business Day	55Y3320
5-year LOR 24x7 4-hour response	55Y3323

ThinkPlus Priority Support for SMC customers

- 9x5 Next Business Day response Lenovo Onsite Repair
- 24x7 support with priority routing and advanced level technicians

Lenovo SMC Storage Array with 3-year warranty

3-year Priority Support	55Y3324
4-year Priority Support	55Y3325
5-year Priority Support	55Y3326

ThinkPlus Priority 4 Support for SMC customers

- 24x7 4-hour response Lenovo Onsite Repair
- 24x7 support with priority routing and advanced level technicians

Lenovo SMC Storage Array with 3-year warranty

3-year Priority 4 Support	55Y3327
4-year Priority 4 Support	55Y3328
5-year Priority 4 Support	55Y3329



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Warranty: For a copy of applicable product warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC, 27709, Attn: Dept ZPYA/B600. Lenovo makes no representation or warranty regarding third party products or services.

¹ **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

² **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less.

³ **Systems with limited onsite service** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges.

⁴ **SATA/SAS:** The system configuration supports the installation of either SATA or SAS disks. A configuration including both SATA and SAS disks is not supported.

⁷ **ThinkPlus Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

⁸ **RAID:** Supported RAID levels for a system will vary from the stated capabilities of the RAID controller due to dependencies on the number and capacity of physical disks in the system and on customer requirements for performance, fault tolerance, or data redundancy.

RAID levels and requirements:

- **RAID 0 (striping)** provides increased performance by writing data across multiple drives.
- **RAID 1 (mirroring)** provides fault tolerance by writing the data on two drives.
- **RAID 5 (striping with parity)** uses distributed parity data to provide fault tolerance more efficiently than RAID 1. Requires three or more drives.
- **RAID 6 (striped set with dual distributed parity)** provides fault tolerance from two drive failures; array continues to operate with up to two failed drives. Requires four drives.
- **RAID 10 (or RAID 1+0)** combines RAID 1 and RAID 0 to create a stripe of mirrors that is fault tolerant while offering increased performance. Requires four drives.
- **RAID 50 (or RAID 5+0)** combines RAID 5 and RAID 0 to create block-level striping with distributed parity improving performance over RAID 5. Requires six drives.
- **RAID 60 (or RAID 6+0)** combines RAID 6 and RAID 0 to create block-level striping with distributed double parity improving performance over RAID 6. Requires eight drives.

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April 2010
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Personal Systems Reference Lenovo® ThinkVision® Monitors

March 2010 - Version 373





ThinkVision L2251x Wide Monitor

Visit www.lenovo.com/psref for the latest version

Name	D186 Wide Flat Panel Monitor	Features <ul style="list-style-type: none">• Widescreen 18.5-inch monitor• High Definition (HD) ready; 1366x768 resolution• Detachable stand tilts for comfortable viewing• Supports VESA mount (100mm)• 50% less mercury• Kensington® lock slot ready for enhanced security
Case color	Business black	
Type-model	2580-AB1	 Lenovo D186 Wide Monitor
Panel	TFT-LCD, twisted nematic (TN), CCFL backlight	
Viewable image size	18.5" (470mm) diagonal	
Max view area (W x H)	16.1" x 9.1" / 409.8mm x 230.4mm	
Optimum resolution	1366x768 at 60Hz	
Maximum resolution	1366x768 at 60Hz (135MHz max pixel rate)	
Aspect ratio	16:9	
Pixel pitch (mm)	.300mm	
Dot/Pixel per Inch	85 dpi	
Brightness	200 nits or cd/m² (typical)	
Contrast ratio	600:1 (typical)	
Pixel response time	5ms (typical)	
Color gamut	67%	
Anti-reflective	Anti-reflective, anti-glare	
Viewing angle at 10:1 CR	90° (+/- 45°) horizontal, 50° (+/- 25°) vertical	
Stand	Tilt adjustable stand	
Bezel width	<i>Sides:</i> 0.61" (15.6mm); <i>top:</i> 0.67" (17.1mm); <i>bottom:</i> 1.19" (30.1mm)	
Dimensions (HxWxD)	14.6" H x 17.4" W x 8.3" D; 370mm H x 442mm W x 210mm D	
Power supply	16 watts typical, 24 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)	
Weight	7.28 lb; 3.3kg	
Limited warranty ⁴	3 years (includes backlight)	
Available date	January 2010	
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant	
Power management	None	
Ergonomics	ISO 9241-307	
Pixel defect	ISO 9241-307 pixel defect standard	
Emission standards	FCC Class B	
Environmental	WEEE, RoHS (EU Directive 2002/95/EC),	
Preset resolutions	VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768 WXGA: 1280x720, 1280x768 1360x768, 1366x768	
Presets	Standard presets: 20; user settings: 16	
Viewing adjustments	<i>Tilt:</i> 20° back, -5° forward; no lift; no swivel; detachable stand	
Rotating screen	None	
On screen display	On screen display with digital user controls (8 languages)	
Control features	Direct access (control buttons on front) for automatic image setup and adjustment for brightness	
USB hub	None	
Multiple input	None	
Monitor connectors	VGA 15-pin D-shell, analog, blue	
Signal cables	Detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter	
Mounting features	Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI® (100mm mount)	
Security	Security keyhole for attachment of optional cable lock (Kensington lock-compatible)	
Ship group	Monitor, attached stand, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter black power cord	
Limited Warranty		
⇒ 3 year limited warranty⁴		
⇒ International Warranty Service⁵		
⇒ Rapid Replacement Service at 1-800-426-7378		
⇒ Replacement normally arrives in two business days, excluding holidays		
⇒ Lenovo pays all shipping costs for valid warranty claims⁶		
⇒ Service upgrade options:⁷		
• 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)		
• 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)		
• 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)		
• 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9216)		
• 4 year, mail exchange (51J0589)		
• 5 year, mail exchange (51J0590)		
⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴		
Accessories		
Kensington MicroSaver® Cable Lock		73P2582
Kensington Twin Head Cable Lock		45K1620
Lenovo Easy Reach Monitor Stand		55Y9258
ThinkVision TFT Radial Arm ⁹		19K4464
See details at www.lenovo.com/support/monitoraccessories		
See all monitors at www.lenovo.com/thinkvision		

See footnotes for important warranty information
US model announced January 12, 2010



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(D186) January 2010

Name	L2060 Wide Flat Panel Monitor	Features <ul style="list-style-type: none">• All-purpose 20-inch wide flat panel LCD monitor• View images in a 16x9 wide aspect ratio• High-bandwidth Digital Content Protection (HDCP)-compliant• Tilt and cable management stand• NovoVision offers four modes (text, Internet and picture, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement• Microsoft® Windows® Vista™ Premium certified								
Case color	High gloss black									
Type-model	2120-HB1	 <p>Lenovo L2060 Wide Monitor</p>  <p>Lenovo L2060 Wide Monitor rear view with cable management</p>								
Panel	TFT-LCD, twisted nematic (TN), CCFL backlight									
Viewable image size	20.0" / 508mm (diagonal)									
Max view area (W x H)	17.4" x 9.8" / 443mm x 249mm									
Optimum resolution	1600x900 at 60Hz									
Maximum resolution	1600x900 at 75Hz (137MHz max pixel rate)									
Aspect ratio	16:9									
Pixel pitch (mm)	0.277mm									
Dot/Pixel per Inch	92 dpi									
Brightness	250 nits or cd/m ² (typical)									
Contrast ratio	1000:1 (typical)									
Pixel response time	5ms (typical)									
Color gamut	72%									
Anti-reflective	Anti-reflective, anti-glare									
Viewing angle at 10:1 CR	160° (+/- 80°) horizontal, 160° (+/- 80°) vertical									
Stand	Tilt adjustable stand									
Bezel width	<i>Sides:</i> 0.57" (16.9mm); <i>top:</i> 0.92" (23.3mm); <i>bottom:</i> 0.86" (21.9mm)									
Soundbar slot	Supports optional soundbar									
Dimensions (HxWxD)	14.6" H x 18.7" W x 6.7" D; 370.6mm H x 476mm W x 170.2mm D									
Power supply	without soundbar: 22 watts typical, 27watts max; with soundbar: 34 watts typical, 39watts max; <1 watts standby/suspend, 90-264Vac (universal) integrated (no external brick-like power supply)									
Weight	10.5 lb; 4.76kg									
Limited warranty ⁴	3 years (includes backlight)									
Available date	July 2009									
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant									
Power management	ENERGY STAR [®] 5.0									
Ergonomics	ISO 13406 Part 2 ¹									
Pixel defect	ISO 13406-2 Class II pixel defect standard									
Emission standards	MPR-2, MPR-3A, FCC Class B									
Environmental	WEEE, RoHS (EU Directive 2002/95/EC)									
Preset resolutions	VGA: 640x350, 640x480, 720x400 SVGA: 800x600, 832x624 XGA: 1024x768, 1152x864 WXGA: 1280x720, 1280x768, 1366x768 SXGA: 1280x1024 WXGA+: 1440 x 900, 1600x900									
Presets	Standard presets: 28									
Viewing adjustments	<i>Tilt:</i> 20° back, -5° forward; detachable stand									
Rotating screen	None									
On screen display	On screen display with digital user controls (8 languages)									
Control features	Direct access (control buttons on front) for automatic image setup and NovoVision function providing automatic adjustment for contrast, brightness, color correction, and color enhancement with 4 mode settings for text, Internet and picture, video, and split demo)									
USB hub	None									
Multiple input	Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button)									
Monitor connectors	(1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D) for digital attach [white], HDCP-compliant									
Signal cables	(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, DVI-D at each end (for digital connector), 1.8 meter									
Mounting features	Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI [®] (75mm mount)									
Security	Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)									
Ship group	Monitor, attached stand, Setup Guide, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, analog signal cable, digital signal cable, 1.8m power cord									
Limited Warranty <ul style="list-style-type: none">⇒ 3 year limited warranty⁴⇒ International Warranty Service⁵⇒ Rapid Replacement Service at 1-800-426-7378⇒ Lenovo pays all shipping costs for valid warranty claims⁶⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴		Accessories <table><tr><td>ThinkVision Soundbar</td><td>45K1263</td></tr><tr><td>Kensington® MicroSaver® Cable Lock</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr></table> <p>See details at www.lenovo.com/support/monitoraccessories See all monitors at www.lenovo.com/thinkvision</p>	ThinkVision Soundbar	45K1263	Kensington® MicroSaver® Cable Lock	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkVision TFT Radial Arm ⁹	19K4464
ThinkVision Soundbar	45K1263									
Kensington® MicroSaver® Cable Lock	73P2582									
Kensington Twin Head Cable Lock	45K1620									
ThinkVision TFT Radial Arm ⁹	19K4464									

Name	L215 Wide Flat Panel Monitor	Features <ul style="list-style-type: none">• Widescreen 21.5-inch monitor• High Definition (Full HD) ready; supports 1080p video• Stand tilts and swivels for comfortable viewing• Detachable rear stand with cable clip to hide cables• NovoVision offers four modes (text, Internet and picture, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement								
Case color	High gloss black									
Type-model	6521-HB1 6325-HB1									
Panel	TFT-LCD, twisted nematic (TN), CCFL backlight									
Viewable image size	21.5" (547mm) diagonal									
Max view area (W x H)	18.7" x 10.5" / 476.0mm x 267.7mm									
Optimum resolution	1920x1080 at 60Hz									
Maximum resolution	1920x1080 at 60Hz (205MHz max pixel rate)									
Aspect ratio	16:9									
Pixel pitch (mm)	.248mm									
Dot/Pixel per Inch	103 dpi									
Brightness	300 nits or cd/m ² (typical)									
Contrast ratio	1000:1 (typical)									
Pixel response time	5ms (typical)									
Color gamut	72%									
Anti-reflective	Anti-reflective, anti-glare									
Viewing angle at 10:1 CR	160° (+/- 80°) horizontal, 160° (+/- 80°) vertical									
Stand	Tilt and swivel adjustable stand									
Bezel width	<i>Sides: 0.66" (16.9mm); top: 0.98" (25.0mm); bottom: 0.83" (21.0mm)</i>									
Dimensions (HxWxD)	15.4" H x 20.2" W x 7.1" D; 391.0mm H x 512.3mm W x 180.2mm D									
Power supply	36 watts typical, 45 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)									
Weight	10.8 lb; 4.9kg									
Limited warranty ⁴	1 year 3 years (includes backlight) (includes backlight)									
Available date	February 2009									
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant									
Power management	ENERGY STAR [®] 4.1									
Ergonomics	ISO 13406 Part 2 ¹									
Pixel defect	ISO 13406-2 Class II pixel defect standard									
Emission standards	MPR-2, MPR-3A, FCC Class B									
Environmental	WEEE, RoHS (EU Directive 2002/95/EC)									
Preset resolutions	VGA: 640x350, 640x480 SVGA: 800x600, 832x624 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA+: 1440x900 WSXGA+: 1680x1050 WUXGA: 1920x1080									
Presets	Standard presets: 25									
Viewing adjustments	<i>Tilt: 20° back, -5° forward; swivel: +/-170°; detachable stand</i>									
Rotating screen	None									
On screen display	On screen display with digital user controls (7 languages)									
Control features	Direct access (control buttons on front) for automatic image setup and Novo Vision function providing automatic adjustment for contrast, brightness, color correction, and color enhancement with 4 mode settings for text, Internet and picture, video, and split demo)									
USB hub	None									
Multiple input	Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button)									
Monitor connectors	(1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, HDCP-compliant									
Signal cables	(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, DVI-D at each end, digital, 1.8 meter									
Mounting features	Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI [®] (75mm mount)									
Security	Security keyhole for attachment of optional cable lock (Kensington [®] lock-compatible)									
Ship group	Monitor, attached stand, cable clip, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord									
Limited Warranty <ul style="list-style-type: none">➤ 6521: 1 year limited warranty⁴➤ 6325: 3 year limited warranty⁴➤ Rapid Replacement Service at 1-800-426-7378➤ Replacement normally arrives in two business days, excluding holidays➤ Lenovo pays all shipping costs for valid warranty claims⁶➤ 24x7[®] day toll-free support for warranty issues during the warranty period⁴		Accessories <table><tr><td>ThinkVision Soundbar</td><td>45K1263</td></tr><tr><td>Kensington[®] MicroSaver[®] Cable Lock</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr></table> <p>See details at www.lenovo.com/support/monitoraccessories See all monitors at www.lenovo.com/thinkvision</p>	ThinkVision Soundbar	45K1263	Kensington [®] MicroSaver [®] Cable Lock	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkVision TFT Radial Arm ⁹	19K4464
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Kensington [®] MicroSaver [®] Cable Lock	73P2582									
Kensington Twin Head Cable Lock	45K1620									
ThinkVision TFT Radial Arm ⁹	19K4464									



See footnotes for important warranty information
 US models announced January 27 or February 17, 2009

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<div><div>Name</div><div>Case color</div><div>Type-model</div><div>Panel</div><div>Viewable image size</div><div>Max view area (W x H)</div><div>Optimum resolution</div><div>Maximum resolution</div><div>Aspect ratio</div><div>Pixel pitch (mm)</div><div>Dot/Pixel per Inch</div><div>Brightness</div><div>Contrast ratio</div><div>Pixel response time</div><div>Color gamut</div><div>Anti-reflective</div><div>Viewing angle at 10:1 CR</div><div>Stand</div><div>Bezel width</div><div>Dimensions (HxWxD)</div><div>Power supply</div><div>Weight</div><div>Limited warranty⁴</div><div>Available date</div></div> <div><div>L2261 Wide Flat Panel Monitor</div><div>High gloss black</div><div>6521-HH1</div><div>TFT-LCD, twisted nematic (TN), white LED backlight</div><div>21.5" (547mm) diagonal</div><div>18.8" x 10.6" / 476.6mm x 268.1mm</div><div>1920x1080 at 60Hz</div><div>1920x1080 at 60Hz (205MHz max pixel rate)</div><div>16:9</div><div>.248mm</div><div>103 dpi</div><div>250 nits or cd/m² (typical)</div><div>1000:1 (typical)</div><div>5ms (typical)</div><div>68%</div><div>Anti-reflective, anti-glare</div><div>170° (+/- 85°) horizontal, 160° (+/- 80°) vertical</div><div>Tilt and swivel adjustable stand</div><div><i>Sides:</i> 0.66" (16.9mm);</div><div>15.4" H x 20.2" W x 7.1" D;</div><div>391.0mm H x 512.3mm W x 180.2mm D</div><div>without soundbar: 20 watts typical, 24 watts max;</div><div>with soundbar: 28 watts typical, 32 watts max;</div><div><1 watts standby/suspend, universal,</div><div>integrated (no external brick-like power supply)</div><div>9.6 lb; 4.37kg</div><div>1 year (includes backlight)</div><div>March 2010</div></div>		<div><div>Features</div><div><ul style="list-style-type: none">• Widescreen 21.5-inch monitor• High Definition (Full HD) ready; supports 1080p video• Stand tilts and swivels for comfortable viewing• Detachable rear stand with cable clip to hide cables• NovoVision offers four modes (text, Internet and picture, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement</div></div>
<div><div>VESA-compliant²</div><div>Power management</div><div>Ergonomics</div><div>Emission standards</div><div>Environmental</div><div>Preset resolutions</div><div>Presets</div></div> <div><div>VESA DDC2B/CI, VESA DPMS-compliant</div><div>ENERGY STAR[®] 5.0</div><div>ISO 9241-307</div><div>MPR-2, MPR-3A, FCC Class B</div><div>WEEE, RoHS (EU Directive 2002/95/EC)</div><div>VGA: 640x350, 640x480</div><div>SVGA: 800x600, 832x624</div><div>XGA: 1024x768, 1152x864</div><div>SXGA: 1280x1024</div><div>WXGA+: 1440x900</div><div>WSXGA+: 1680x1050</div><div>WUXGA: 1920x1080</div><div>Standard presets: 25</div></div>	<div><div><div></div><div><div>Lenovo</div><div>L2261 Wide Monitor</div></div></div><div><div></div><div><div>Lenovo</div><div>L2261 Wide Monitor rear view with cable management</div></div></div></div>	
<div><div>Viewing adjustments</div><div>Rotating screen</div><div>On screen display</div><div>Control features</div><div>USB hub</div><div>Multiple input</div><div>Monitor connectors</div><div>Signal cables</div><div>Mounting features</div><div>Security</div><div>Ship group</div></div> <div><div><i>Tilt:</i> 20° back, -5° forward; <i>swivel:</i> +/-170°; detachable stand</div><div>None</div><div>On screen display with digital user controls (8 languages)</div><div>Direct access (control buttons on front) for automatic image setup and NovoVision function providing 4 mode settings for text, Internet and picture, video, and split demo</div><div>None</div><div>Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button)</div><div>(1) VGA 15-pin D-shell, analog, blue</div><div>(2) Digital Visual Interface (DVI-D), digital, white, HDCP-compliant</div><div>(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter</div><div>(2) detachable, DVI-D at each end, digital, 1.8 meter</div><div>Wall or desk mounting using the Radial Arm⁹ or third-party accessories meeting the VESA FPMPI[®] (75mm mount)</div><div>Security keyhole for attachment of optional cable lock (Kensington[®] lock-compatible)</div><div>Monitor, attached stand, cable clip, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord</div></div>	<div><div>Accessories</div><div><div>See details at www.lenovo.com/support/monitoraccessories</div><div>See all monitors at www.lenovo.com/thinkvision</div></div></div>	
<div><div>Limited Warranty</div><div><div>⇒ 1 year limited warranty⁴</div><div>⇒ Rapid Replacement Service at 1-877-453-6686</div><div>⇒ Replacement normally arrives in two business days, excluding holidays</div><div>⇒ Lenovo pays all shipping costs for valid warranty claims⁶</div><div>⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴</div></div></div>		

See footnotes for important warranty information
 US model announced March 9, 2010

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Name Case color Type-model Panel Viewable image size Max view area (W x H) Optimum resolution Aspect ratio Pixel pitch (mm) Dot/Pixel per Inch Brightness Contrast ratio Pixel response time Color gamut Anti-reflective Vertical frequency Horizontal frequency Viewing angle at 5:1 CR Viewing angle at 10:1 CR Stand Bezel width Dimensions (HxWxD) Power supply Weight Limited warranty⁴ Available date	L2361p Wide Flat Panel Monitor High gloss black with metal gray 4307-HE1 TFT-LCD, twisted nematic (TN), white LED backlight 23.0" (584mm) diagonal 18.7" x 11.7" / 473.8mm x 296.1mm 1920x1080 16:9 .265mm 96 dpi 250 nits or cd/m ² (typical) 1000:1 (typical) 5ms (typical) 68% Anti-reflective, anti-glare 50 to 75Hz 30 to 83kHz 176° (+/- 88°) horizontal, 170° (+/- 85°) vertical 170° (+/- 85°) horizontal, 160° (+/- 80°) vertical Tilt adjustable stand Sides: 1.13" (28.7mm) 16.69" H x 22.40" W x 6.57" D; 423.8mm H x 569.0mm W x 167.0mm D 23 watts typical, 45 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 11.8 lb; 5.35kg 1 year (includes backlight) March 2010	Features <ul style="list-style-type: none"> • Widescreen 23-inch monitor with white LED backlight • 1080p full HD support, HDCP-compliant • 10-60 degree easily adjustable stand and VESA mount • Integrated camera (0.3 megapixel, software interpolated up to 2.0 megapixels) and microphone • Mercury free and arsenic free glass • Easy navigation capacitive touch buttons • NovoVision offers four modes (text, internet and picture, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement • Microsoft® Windows 7 certified
VESA-compliant² Power management Ergonomics Emission standards Environmental Preset resolutions Presets / user settings	VESA DDC2B/CI, VESA DPMS-compliant ENERGY STAR® 5.0 ISO 9241-307 MPR-2, FCC Class B TCO Displays 5.0, WEEE, RoHS VGA: 640x350, 640x480 SVGA: 800x600, 832x624 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA+: 1440x900 WSXGA+: 1680x1050 WUXGA: 1920x1080 Presets: 25 (VGA), 24 (HDMI); user settings: 20	 <p>Lenovo L2361p Wide Monitor</p>  <p>Lenovo L2361p Wide Monitor rear view</p>
Viewing adjustments Rotating screen On screen display Control features USB hub Multimedia Camera module Multiple input Monitor connectors Signal cables Mounting features Security Ship group	Tilt: 10°-60° back; no lift; no swivel; adjustable stand None On screen display with digital user controls (8 languages) Direct access (touch-sensitive buttons on front) for automatic image setup and NovoVision function providing 4 mode settings for text, internet and picture, video, and split demo USB 2.0 Hub (1 port into PC, 3 ports for accessories) Integrated speakers (3 watts x 2), 3.5mm Headset audio out Integrated camera (0.3 megapixel, software interpolated up to 2.0 megapixels) and microphone Dual input (two different PCs attach to two different connectors; one PC shows image; select via button) (1) VGA 15-pin D-shell, analog, blue (2) HDMI (1.3), digital, black, HDCP-compliant (1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, HDMI at each end, digital, 1.8 meter Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI® (100mm mount) Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)	
Limited Warranty	Accessories	
⇒ 1 year limited warranty⁴ ⇒ Rapid Replacement Service at 1-877-453-6686 ⇒ Replacement normally arrives in two business days, excluding holidays ⇒ Lenovo pays all shipping costs for valid warranty claims⁵ ⇒ 24x7⁶ day toll-free support for warranty issues during the warranty period⁴	See details at www.lenovo.com/support/monitoraccessories See all monitors at www.lenovo.com/thinkvision	

See footnotes for important warranty information
 US model announced March 9, 2010

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 (L2361P) March 2010

Name	L2461x Wide Flat Panel Monitor		Features <ul style="list-style-type: none">• Widescreen 23.6-inch monitor with white LED backlight• 1080p full HD support, HDCP-compliant• Full screen multi-touch designed for Windows® 7• Supports 120Hz MEMC technology (Motion Estimation, Motion Compensation)• 10-60 degree easily adjustable stand and VESA mount• Integrated camera (2.0 megapixel) and microphone• Light bar supports up to 256-color background light• Mercury free panel• Easy navigation capacitive touch buttons• Microsoft® Windows 7 certified
Case color	High gloss black with metal gray		
Type-model	2467-HE1	4015-HB1	
Panel	TFT-LCD, twisted nematic (TN), white LED backlight supports multi-touch function		
Viewable image size	23.6" (599mm) diagonal		
Max view area (W x H)	20.5" x 11.5" / 521.3mm x 293.2mm		
Optimum resolution	1920x1080		
Aspect ratio	16:9		
Pixel pitch (mm)	.272mm		
Dot/Pixel per Inch	93 dpi		
Brightness	300 nits or cd/m² (typical)		
Contrast ratio	1000:1 (typical)		
Pixel response time	5ms (typical)		
Display enhancement	120 Hz MEMC (double frame tech), MPRT<10ms		
Color gamut	68%		
Anti-reflective	Anti-reflective, anti-glare		
Vertical frequency	50 to 75Hz		
Horizontal frequency	30 to 83kHz		
Viewing angle at 10:1 CR	170° (+/- 85°) horizontal, 160° (+/- 80°) vertical		
Stand	Tilt adjustable stand		
Bezel width	Sides: 0.80" (20.4mm)		
Dimensions (HxWxD)	16.69" H x 22.40" W x 6.57" D; 423.8mm H x 569.0mm W x 167.0mm D		
Power supply	27 watts typical, 65 watts maximum, <1 watts standby/suspend, universal, external power adapter with attached 1.8 m DC cord 17.9 lb; 8.1kg		
Weight			
Limited warranty ⁴	1 year (includes backlight)	3 year (includes backlight)	
Available date	March 2010	March 2010	
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant		
Power management	ENERGY STAR [®] 5.0		
Ergonomics	ISO 9241-307		
Emission standards	MPR-2, FCC Class B		
Environmental	TCO Displays 5.0, WEEE, RoHS		
Preset resolutions	VGA: 640x350, 640x480 SVGA: 800x600, 832x624 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA: 1366x768 WXGA+: 1440x900 WSXGA+: 1680x1050 WUXGA: 1920x1080		
Presets / user settings	Presets: 26 (VGA), 24 (HDMI); user settings: 20		
Viewing adjustments	Tilt: 10°-60° back, 0° forward; adjustable stand		
Rotating screen	None		
On screen display	On screen display with digital user controls (8 languages)		
Control features	Direct access (touch-sensitive buttons on front) for Windows shortcuts, speaker volume control, light bar adjustment, and monitor OSD controls		
USB hub	USB 2.0 Hub (1 port into PC, 4 ports for accessories)		
Multimedia	Integrated speakers (Bass Enhanced, 3 watts x 2), 3.5mm Headset audio out		
Camera module	Integrated camera (2.0 megapixel) and dual array microphone		
Light bar	Background light up to 256 colors, light bar adjustment via touch-sensitive button		
Multiple input	Dual input (two different PCs attach to two different connectors; one PC shows image; select via touch-sensitive button)		
Monitor connectors	(1) VGA 15-pin D-shell, analog, blue (2) HDMI (1.3), digital, black, HDCP-compliant		
Signal cables	(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, HDMI at each end, digital, 1.8 meter		
Mounting features	Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI [®] (100mm mount)		
Security	Security keyhole for attachment of optional cable lock (Kensington [®] lock-compatible)		
Ship group	Monitor, attached stand, cable cover, power adapter (1.8 meter DC cord + 1.0 meter power cord), Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter HDMI cable, 1.8 meter USB cable, 1.8 meter audio cable		
Limited Warranty			Accessories
⇒ 2467: 1 year limited warranty⁴ Rapid Replacement Service at 1-877-453-6686			Kensington MicroSaver [®] Cable Lock 73P2582
⇒ 4015: 3 year limited warranty International Warranty Service⁵ Rapid Replacement Service at 1-800-426-7378			Kensington Twin Head Cable Lock 45K1620
⇒ Replacement normally arrives in two business days, excluding holidays			Lenovo Easy Reach Monitor Stand 55Y9258
⇒ Lenovo pays all shipping costs for valid warranty claims⁶			ThinkVision TFT Radial Arm ⁹ 19K4464
⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴			
			See details at www.lenovo.com/support/monitoraccessories
			See all monitors at www.lenovo.com/thinkvision

See footnotes for important warranty information
 US models announced January 5 or March 9, 2010

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<div>NameL1711p Flat Panel Monitor</div> <div>Case colorBusiness black</div> <div>Type-model5047-HB2</div> <div>PanelTFT-LCD, twisted nematic (TN), CCFL backlight</div> <div>Viewable image size17.0" (432mm) diagonal</div> <div>Max view area (W x H)13.3" x 10.6" (337.9mm x 270.3mm)</div> <div>Optimum resolution1280x1024 at 60Hz</div> <div>Maximum resolution1280x1024 at 75Hz (165MHz max pixel rate)</div> <div>Aspect ratio5:4</div> <div>Pixel pitch (mm)0.264mm</div> <div>Dot/Pixel per Inch96 dpi</div> <div>Brightness250 nits or cd/m² (typical)</div> <div>Contrast ratio1000:1 (typical)</div> <div>Pixel response time5ms (typical)</div> <div>Color gamut72%</div> <div>Anti-reflectiveAnti-reflective, anti-glare</div> <div>Vertical frequency50 to 75Hz</div> <div>Horizontal frequency30 to 83kHz</div> <div>Viewing angle at 10:1 CR160° (+/- 80°) horizontal, 160° (+/- 80°) vertical</div> <div>StandTilt height adjustable stand</div> <div>Bezel widthSides: 0.6" (15.3mm); top: 0.72" (18.4mm); bottom: 1.11" (28.1mm)</div> <div>Dimensions (HxWxD)16-20.33" H x 14.6" W x 6.1" D; 405.7-515.7mm H x 370mm W x 155.2mm D</div> <div>Power supply18 watts typical, 21 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)</div> <div>Weight9.3 lb; 4.21kg</div> <div>Limited warranty⁴3 year (includes backlight)</div> <div>Available dateNovember 2009</div>		<div>Features</div> <div><ul style="list-style-type: none">• Regular screen 17-inch monitor• Supports SXGA 1280x1024 resolution• Ergonomic stand tilts and provides a 4.3" (110mm) range height adjustment for comfortable viewing• Includes dual input connection for attachment to two systems concurrently (analog and digital)• Reduces mercury content by 50% and arsenic free glass• Up to 70% recycled packaging materials• Privacy Filter Slot• Microsoft® Windows® 7 certified</div>											
<div>VESA-compliant²VESA DDC2B/CI, VESA DPMS-compliant</div> <div>Power managementENERGY STAR® 5.0</div> <div>ErgonomicsISO 9241-307</div> <div>Emission standardsMPR-2, MPR-3A, FCC Class B</div> <div>EnvironmentalTCO (TCO Displays 5.0), WEEE, RoHS, EPEAT™ Gold rating</div>		<div></div> <div>ThinkVision L1711p Monitor</div>											
<div>Preset resolutionsVGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768 SXGA: 1280x1024</div> <div>Presets / user settingsStandard presets: 17; user settings: 22</div>													
<div>Viewing adjustmentsTilt: 20° back, -3° forward; lift: 4.3" (110mm); detachable stand</div> <div>Rotating screenNone</div> <div>On screen displayOn screen display with digital user controls (8 languages)</div> <div>Control featuresDirect access (buttons on front) for automatic image setup</div> <div>Multiple inputDual input (two different PCs attach to two different connectors; one PC shows image; select via button)</div> <div>Monitor connectors(1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, HDCP-compliant</div> <div>Signal cables(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, DVI-D at each end, digital, 1.8 meter</div> <div>Mounting featuresWall or desk mounting using the Radial Arm⁹ or third-party accessories meeting the VESA FPMPI® (100mm mount)</div> <div>SecuritySecurity keyhole for attachment of optional cable lock (Kensington® lock-compatible)</div>													
<div>Ship groupMonitor, attached stand, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord</div>													
<div>Limited Warranty</div> <div><ul style="list-style-type: none">⇒ 3 year limited warranty⁴⇒ International Warranty Service⁵⇒ Rapid Replacement Service at 1-800-426-7378⇒ Replacement normally arrives in two business days, excluding holidays⇒ Lenovo pays all shipping costs for valid warranty claims⁶⇒ Service upgrade options:⁷<ul style="list-style-type: none">• 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)• 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)• 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9215)• 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9216)• 4 year, mail exchange (51J0589)• 5 year, mail exchange (51J0590)⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴</div>			<div>Accessories</div> <div><table><tr><td>ThinkVision Soundbar</td><td>45K1263</td></tr><tr><td>Kensington® MicroSaver® Cable Lock</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ThinkPad Convertible Monitor Stand</td><td>40Y7620</td></tr><tr><td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr></table></div> <div>See details at www.lenovo.com/support/monitoraccessories</div> <div>See all monitors at www.lenovo.com/thinkvision</div>	ThinkVision Soundbar	45K1263	Kensington® MicroSaver® Cable Lock	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
ThinkVision Soundbar	45K1263												
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Kensington Twin Head Cable Lock	45K1620												
ThinkPad Convertible Monitor Stand	40Y7620												
ThinkVision TFT Radial Arm ⁹	19K4464												


See footnotes for important warranty information
US model announced October 20, 2009

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Flat Panel Monitors - US model		Features
Name	L197 Wide Flat Panel Monitor	<ul style="list-style-type: none"> • Widescreen 19-inch flat panel monitor • EPEAT™ Gold rating • View images in a 16:10 wide aspect ratio • Resolution of 1440x900 provides crisp screen images • Slim 14.3mm (0.56") side bezel • High-bandwidth Digital Content Protection (HDCP)-compliant • Includes dual input connection for attachment to two systems concurrently (analog and digital) • Complements the ThinkCentre® and ThinkPad® systems • Microsoft® Windows® Vista™ Premium certified
Case color	Business black	
Type-model	4434-HE1	 <p>Lenovo ThinkVision L197 Wide</p>
Stand	Tilt stand	
Screen	LCD Active Matrix TFT (Thin Film Transistor)	
Viewable image size (diag)	19.0" / 481mm (diagonal)	
Aspect ratio	16:10	
Pixel pitch (mm)	.285mm	
Max view area (inches)	16.1" x 10.0" (horizontal x vertical)	
Max view area (mm)	408mm x 255mm (horizontal x vertical)	
Viewing angle at 5:1 CR	176° vertical, 176° horizontal	
Viewing angle at 10:1 CR	160° vertical, 170° horizontal	
Video input	Digital or analog (two separate connectors)	
Dual input	Dual input (two different PCs attach to two different connectors; one PC shows image; select via button)	
Rotating screen	No pivot	
USB Hub	None	
Optimum resolution	1440x900 at 60Hz	
Maximum resolution	1440x900 at 75Hz (137MHz maximum pixel rate)	
Vertical frequency	50 to 76Hz	
Horizontal frequency	30 to 81kHz	
Preset display modes	VGA: 640x480 60, 66, 72, 75Hz 640x350 70Hz 720x400 70Hz SVGA: 800x600 56, 60, 72, 75Hz 832x624 75Hz XGA: 1024x768 60, 70, 75Hz 1152x864 75Hz SXGA: 1280x1024 60, 70, 75Hz WXGA+: 1440x900 60, 75Hz	
Presets / user settings	Standard presets: 20; user settings: 20	
Brightness	250 nits or cd/m ² (typical)	
Contrast ratio	1000:1 (typical)	
Pixel response time	5ms (typical)	
Color gamut	72%	
On screen display	On screen display with digital user controls (7 languages)	
Control features	Direct access (buttons on front) for automatic image setup	
Monitor connectors	Two connectors: (1) analog VGA 15-pin D-shell [blue], (2) Digital Visual Interface (DVI-D) for digital (not analog) attach [white], HDCP-compliant	
Signal cables	Two cables: (1) detachable, VGA 15-pin D-shell at each end (for analog connector), 1.8 meter, matches color of monitor (2) detachable digital, DVI-D at each end (for digital connector), 1.8 meter, matches color of monitor	
Anti-reflective	Anti-reflective, anti-glare	
Dimensions	15.0"H x 17.3"W x 7.0"D / 381mm height x 440mm width x 179mm depth	
Weight	9.15lb / 4.15kg	
Viewing adjustments	Tilt: 30° back, 4° forward / no lift, no swivel, detachable stand	
Mounting features	Wall or desk mounting using the Radial Arm® or third-party accessories meeting the VESA FPMPI® (100mm mount)	
Security	Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)	
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant	
Power management	ENERGY STAR® 5.0	
Ergonomics	ISO 13406 Part 2 ¹	
Pixel defect	ISO 13406-2 Class II pixel defect standard	
Emission standards	MPR-2, MPR-3A, FCC Class B	
Environmental	TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating	
Ship group	Monitor, attached stand, Setup Guide, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, analog signal cable, digital signal cable, 1.8m black power cord	
Power supply	90-264Vac (universal), integrated (no external brick-like power supply), 22 watts typical, <2 watts standby/suspend	
Limited warranty ⁴	3 year (includes backlight)	
Available date	April 2008	
Limited Warranty		Accessories
<ul style="list-style-type: none"> ⇒ 3 year limited warranty⁴ ⇒ International Warranty Service⁵ ⇒ Rapid Replacement Service at 1-800-426-7378 ⇒ Replacement normally arrives in two business days, excluding holidays ⇒ Lenovo pays all shipping costs for valid warranty claims⁶ ⇒ Service upgrade options:⁷ <ul style="list-style-type: none"> • 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209) • 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212) • 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233) • 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9216) • 4 year, mail exchange (51J0589) • 5 year, mail exchange (51J0590) ⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴ 		ThinkVision® USB Soundbar 40Y7616 Kensington® MicroSaver® Cable Lock 73P2582 Kensington Twin Head Cable Lock 45K1620 ThinkPad Convertible Monitor Stand 40Y7620 ThinkVision TFT Radial Arm ⁹ 19K4464
		See details at www.lenovo.com/support/monitoraccessories
		See all monitors at www.lenovo.com/thinkvision


Name	L1900p Flat Panel Monitor	<div>Features</div> <ul style="list-style-type: none">• Regular screen 19-inch monitor• Supports SXGA 1280x1024 resolution• Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing• Detachable rear stand cable cover and clip to hide cables• Microsoft® Windows® Vista® certified <div></div> <div>ThinkVision L1900p Monitor with optional ThinkVision Soundbar</div>
Case color	Business black	
Type-model	4431-HE1	
Panel	TFT-LCD, twisted nematic (TN), CCFL backlight	
Viewable image size	19.0" (483mm) diagonal	
Max view area (W x H)	14.8" x 11.85" (376mm x 301mm)	
Optimum resolution	1280x1024 at 60Hz	
Maximum resolution	1280x1024 at 75Hz (135MHz max pixel rate)	
Aspect ratio	5:4	
Pixel pitch (mm)	.294mm	
Dot/Pixel per Inch	86 dpi	
Brightness	250 nits or cd/m ² (typical)	
Contrast ratio	800:1 (typical)	
Pixel response time	5ms (typical)	
Color gamut	72%	
Anti-reflective	Anti-reflective, anti-glare	
Vertical frequency	56 to 76Hz	
Horizontal frequency	30 to 81kHz	
Viewing angle at 10:1 CR	160° (+/- 80°) horizontal, 160° (+/- 80°) vertical	
Stand	Tilt, swivel, pivot, and height adjustable stand	
Bezel width	<i>Sides: 0.6" (15.3mm); top: 0.66" (16.8mm); bottom: 1.05" (26.8mm)</i>	
Dimensions (HxWxD)	14.9-19.2" H x 16.1" W x 7.4-9.5" D; 378.7-488.7mm H x 408mm W x 188-241.1mm D	
Power supply	17 watts typical, 24 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)	
Weight	12.5 lb; 5.7kg	
Limited warranty ⁴	3 year (includes backlight)	
Available date	November 2008	
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant	
Power management	ENERGY STAR ^{®3} 5.0	
Ergonomics	ISO 13406 Part 2 ¹	
Pixel defect	ISO 13406-2 Class II pixel defect standard	
Emission standards	MPR-2, MPR-3A, FCC Class B	
Environmental	TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating , GREENGUARD [®] certified	
Preset resolutions	VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768 SXGA: 1280x1024	
Preset / user settings	Standard presets: 21; user settings: 17	
Viewing adjustments	<i>Tilt: 30° back, 0° forward; lift: 4.3" (110mm); swivel: +/-45°; detachable stand</i>	
Rotating screen	Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller)	
On screen display	On screen display with digital user controls (8 languages)	
Control features	Direct access (buttons on front) for automatic image setup	
Multiple input	Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button)	
Monitor connectors	(1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, HDCP-compliant	
Signal cables	(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, DVI-D at each end, digital, 1.8 meter	
Mounting features	Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI [®] (100mm mount)	
Security	Security keyhole for attachment of optional cable lock (Kensington [®] lock-compatible)	
Ship group	Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord	
<div>Limited Warranty</div> <div>⇒ 3 year limited warranty⁴</div> <div>⇒ International Warranty Service⁵</div> <div>⇒ Rapid Replacement Service at 1-800-426-7378</div> <div>⇒ Replacement normally arrives in two business days, excluding holidays</div> <div>⇒ Lenovo pays all shipping costs for valid warranty claims⁶</div> <div>⇒ Service upgrade options⁷</div> <div>• 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)</div> <div>• 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)</div> <div>• 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)</div> <div>• 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9216)</div> <div>• 4 year, mail exchange (51J0589)</div> <div>• 5 year, mail exchange (51J0590)</div> <div>⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴</div>		<div>Accessories</div> <div>ThinkVision Soundbar 45K1263</div> <div>Kensington® MicroSaver® Cable Lock 73P2582</div> <div>Kensington Twin Head Cable Lock 45K1620</div> <div>ThinkPad Convertible Monitor Stand 40Y7620</div> <div>ThinkVision TFT Radial Arm⁹ 19K4464</div> <div>See details at www.lenovo.com/support/monitoraccessories</div> <div>See all monitors at www.lenovo.com/thinkvision</div>

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<div>VESA-compliant²</div> <div>Power management</div> <div>Ergonomics</div> <div>Emission standards</div> <div>Environmental</div>	<div>VESA DDC2B/CI, VESA DPMS-compliant</div> <div>ENERGY STAR® 5.0</div> <div>ISO 9241-307</div> <div>MPR-2, MPR-3A, FCC Class B</div> <div>TCO (TCO Displays 5.0), WEEE, RoHS,</div> <div>EPEAT™ Gold rating</div>	<div></div> <div>ThinkVision L1951p Wide Monitor</div>
<div>Preset resolutions</div>	<div>VGA: 640x350, 640x480, 720x400</div> <div>SVGA: 800x600, 832x624</div> <div>XGA: 1024x768, 1152x864</div> <div>SXGA: 1280x1024</div> <div>WXGA: 1280x720, 1360x768</div> <div>WXGA+ 1440x900</div>	
<div>Presets / user settings</div>	<div>Standard presets: 27;</div> <div>user settings: 20</div>	
<div>Viewing adjustments</div> <div>Rotating screen</div> <div>On screen display</div> <div>Control features</div> <div>Multiple input</div> <div>Monitor connectors</div> <div>Signal cables</div> <div>Mounting features</div> <div>Security</div>	<div>Tilt: 20° back, -3° forward; lift: 3.1" (80mm); detachable stand</div> <div>None</div> <div>On screen display with digital user controls (8 languages)</div> <div>Direct access (buttons on front) for automatic image setup</div> <div>Dual input (two different PCs attach to two different connectors; one PC shows image; select via button)</div> <div>(1) VGA 15-pin D-shell, analog, blue</div> <div>(2) Digital Visual Interface (DVI-D), digital, white, HDCP-compliant</div> <div>(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter</div> <div>(2) detachable, DVI-D at each end, digital, 1.8 meter</div> <div>Wall or desk mounting using the Radial Arm⁹ or third-party accessories meeting the VESA FPMPI® (100mm mount)</div> <div>Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)</div>	
<div>Ship group</div>	<div>Monitor, attached stand, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord</div>	
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Name Case color Type-model Panel Viewable image size Max view area (W x H) Optimum resolution Maximum resolution Aspect ratio Pixel pitch (mm) Dot/Pixel per Inch Brightness Contrast ratio Pixel response time Color gamut Anti-reflective Vertical frequency Horizontal frequency Viewing angle at 10:1 CR Stand Bezel width Dimensions (HxWxD) Power supply Weight Limited warranty⁴ Available date	L2250p Wide Flat Panel Monitor Business black 2572-HB6 TFT-LCD, twisted nematic (TN), CCFL backlight 22.0" (559mm) diagonal 18.7" x 11.7" (473.8mm x 296.1mm) 1680x1050 at 60Hz 1680x1050 at 75Hz (205MHz max pixel rate) 16:10 .282mm 90 dpi 250 nits or cd/m ² (typical) 1000:1 (typical) 5ms (typical) 72% Anti-reflective, anti-glare 50 to 75Hz 30 to 83kHz 170° (+/- 85°) horizontal, 160° (+/- 80°) vertical Tilt and height adjustable stand <i>Sides: 0.60" (15.3mm); top: 0.79" (20.0mm); bottom: 1.10" (28.0mm)</i> 15.68-18.83" H x 19.92" W x 6.11" D; 398.3-478.3mm H x 506mm W x 155.2mm D 21 watts typical, 28 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 11.49 lb; 5.21kg 3 year (includes backlight) October 2009
VESA-compliant² Power management Ergonomics Emission standards Environmental	Features <ul style="list-style-type: none"> • Widescreen 22-inch monitor • Supports WSXGA+ 1680x1050 resolution • Ergonomic stand tilts and provides a 3.1" (80mm) range height adjustment for comfortable viewing • Includes dual input connection for attachment to two systems concurrently (analog and digital) • Reduces mercury content by 50% and arsenic free glass • Up to 65% recycled packaging materials • Privacy Filter Slot • Microsoft® Windows® 7 certified
Preset resolutions Presets / user settings	 ThinkVision L2250p Wide Monitor
Viewing adjustments Rotating screen On screen display Control features USB hub Camera Multiple input Monitor connectors Signal cables Mounting features Security	VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA+: 1440x900 UXGA: 1600x1000 WSXGA+: 1680x1050 Standard presets: 24; user settings: 20 <i>Tilt: 20° back, -3° forward; lift: 3.1" (80mm); detachable stand</i> None On screen display with digital user controls (8 languages) Direct access (buttons on front) for automatic image setup None None Dual input (two different PCs attach to two different connectors; one PC shows image; select via button) (1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, HDCP-compliant (1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, DVI-D at each end, digital, 1.8 meter Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI [®] (100mm mount) Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)
Ship group	Monitor, attached stand, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord

Limited Warranty ⇒ 3 year limited warranty⁴ ⇒ International Warranty Service⁵ ⇒ Rapid Replacement Service at 1-800-426-7378 ⇒ Replacement normally arrives in two business days, excluding holidays ⇒ Lenovo pays all shipping costs for valid warranty claims⁶ ⇒ Service upgrade options:⁷ <ul style="list-style-type: none"> • 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209) • 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212) • 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233) • 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9216) • 4 year, mail exchange (51J0589) • 5 year, mail exchange (51J0590) ⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴	Accessories <table> <tr> <td>ThinkVision Soundbar</td> <td>45K1263</td> </tr> <tr> <td>Kensington MicroSaver® Cable Lock</td> <td>73P2582</td> </tr> <tr> <td>Kensington Twin Head Cable Lock</td> <td>45K1620</td> </tr> <tr> <td>ThinkPad Convertible Monitor Stand</td> <td>40Y7620</td> </tr> <tr> <td>ThinkVision TFT Radial Arm⁹</td> <td>19K4464</td> </tr> </table> See details at www.lenovo.com/support/monitoraccessories See all monitors at www.lenovo.com/thinkvision	ThinkVision Soundbar	45K1263	Kensington MicroSaver® Cable Lock	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
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<table><tr><td>Name</td><td>L2251p Wide Flat Panel Monitor</td></tr><tr><td>Case color</td><td>Business black</td></tr><tr><td>Type-model</td><td>2572-HD6</td></tr><tr><td>Panel</td><td>TFT-LCD, twisted nematic (TN), CCFL backlight</td></tr><tr><td>Viewable image size</td><td>22.0" (559mm) diagonal</td></tr><tr><td>Max view area (W x H)</td><td>18.7" x 11.7" (473.8mm x 296.1mm)</td></tr><tr><td>Optimum resolution</td><td>1680x1050 at 60Hz</td></tr><tr><td>Maximum resolution</td><td>1680x1050 at 75Hz (205MHz max pixel rate)</td></tr><tr><td>Aspect ratio</td><td>16:10</td></tr><tr><td>Pixel pitch (mm)</td><td>.282mm</td></tr><tr><td>Dot/Pixel per Inch</td><td>90 dpi</td></tr><tr><td>Brightness</td><td>250 nits or cd/m² (typical)</td></tr><tr><td>Contrast ratio</td><td>1000:1 (typical)</td></tr><tr><td>Pixel response time</td><td>5ms (typical)</td></tr><tr><td>Color gamut</td><td>72%</td></tr><tr><td>Anti-reflective</td><td>Anti-reflective, anti-glare</td></tr><tr><td>Vertical frequency</td><td>50 to 75Hz</td></tr><tr><td>Horizontal frequency</td><td>30 to 83kHz</td></tr><tr><td>Viewing angle at 10:1 CR</td><td>170° (+/- 85°) horizontal, 160° (+/- 80°) vertical</td></tr><tr><td>Stand</td><td>Tilt, swivel, pivot, and height adjustable stand</td></tr><tr><td>Bezel width</td><td>Sides: 0.60" (15.3mm); 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top: 0.79" (20.0mm); bottom: 1.10" (28.0mm)	Dimensions (HxWxD)	14.46-18.79" H x 19.92" W x 9.50" D; 367.3-477.3mm H x 506mm W x 241.2mm D	Power supply	21 watts typical, 28 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)	Weight	12.94 lb; 5.88kg	Limited warranty ⁴	3 year (includes backlight)	Available date	October 2009	VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant	Power management	ENERGY STAR [®] 5.0	Ergonomics	ISO 9241-307	Emission standards	MPR-2, MPR-3A, FCC Class B	Environmental	TCO (TCO Displays 5.0), WEEE, RoHS, EPEAT™ Gold rating	Preset resolutions	VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA+: 1440x900 UXGA: 1600x1000 WSXGA+: 1680x1050	Presets / user settings	Standard presets: 24; user settings: 20	Viewing adjustments	<i>Tilt:</i> 30° back, 0° forward; <i>lift:</i> 4.3" (110mm); <i>swivel:</i> +/-45°; detachable stand	Rotating screen	Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller)	On screen display	On screen display with digital user controls (8 languages)	Control features	Direct access (buttons on front) for automatic image setup	USB hub	None	Camera	None	Multiple input	Dual input (two different PCs attach to two different connectors; one PC shows image; select via button)	Monitor connectors	(1) VGA 15-pin D-shell, analog, blue (2) DisplayPort, digital, black, HDCP-compliant	Signal cables	(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, DisplayPort at each end, digital, 1.8 meter	Mounting features	Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI [®] (100mm mount)	Security	Security keyhole for attachment of optional cable lock (Kensington [®] lock-compatible)	Ship group	Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter DisplayPort cable, 1.8 meter black power cord	<table><tr><th colspan="2">Features</th></tr><tr><td>•</td><td>Widescreen 22-inch monitor</td></tr><tr><td>•</td><td>Supports WSXGA+ 1680x1050 resolution</td></tr><tr><td>•</td><td>Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing</td></tr><tr><td>•</td><td>Detachable rear stand cable cover and clip to hide cables</td></tr><tr><td>•</td><td>Reduces mercury content by 50% and arsenic free glass</td></tr><tr><td>•</td><td>Up to 60% recycled packaging materials</td></tr><tr><td>•</td><td>Privacy Filter Slot</td></tr><tr><td>•</td><td>Microsoft® Windows® 7 certified</td></tr></table> <div><p>ThinkVision L2251p Wide Monitor</p></div>	Features		•	Widescreen 22-inch monitor	•	Supports WSXGA+ 1680x1050 resolution	•	Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing	•	Detachable rear stand cable cover and clip to hide cables	•	Reduces mercury content by 50% and arsenic free glass	•	Up to 60% recycled packaging materials	•	Privacy Filter Slot	•	Microsoft® Windows® 7 certified
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Mounting features	Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI [®] (100mm mount)																																																																																																													
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Ship group	Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter DisplayPort cable, 1.8 meter black power cord																																																																																																													
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•	Detachable rear stand cable cover and clip to hide cables																																																																																																													
•	Reduces mercury content by 50% and arsenic free glass																																																																																																													
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Name Case color Type-model Panel Viewable image size Max view area (W x H) Optimum resolution Maximum resolution Aspect ratio Pixel pitch (mm) Dot/Pixel per Inch Brightness Contrast ratio Pixel response time Color gamut Anti-reflective Vertical frequency Horizontal frequency Viewing angle at 10:1 CR Stand Bezel width Dimensions (HxWxD) Power supply Weight Limited warranty ⁴ Available date	L2251x Wide Flat Panel Monitor Business black 2578-HB6 TFT-LCD, twisted nematic (TN), white LED backlight 22.0" (559mm) diagonal 18.7" x 11.7" / 473.8mm x 296.1mm 1680x1050 at 60Hz 1680x1050 at 75Hz (205MHz max pixel rate) 16:10 .282mm 90 dpi 250 nits or cd/m ² (typical) 1000:1 (typical) 5ms (typical) 68% Anti-reflective, anti-glare 50 to 75Hz 30 to 83kHz 170° (+/- 85°) horizontal, 160° (+/- 80°) vertical Tilt, swivel, pivot, and height adjustable stand <i>Sides: 0.60" (15.3mm); top: 0.79" (20.0mm); bottom: 1.10" (28.0mm)</i> 14.97-19.3" H x 19.92" W x 9.50" D; 380.3-490.3mm H x 506mm W x 241.2mm D 21 watts typical, 28 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 12.39 lb; 5.63kg 3 year (includes backlight) November 2009	Features <ul style="list-style-type: none"> • Widescreen 22-inch monitor with white LED backlight • Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing • Detachable rear stand cable cover and clip to hide cables • Integrated camera (3.0 megapixel) and microphone • Integrated ambient light sensor and a proximity sensor, save more energy and make viewing more comfortable • Low halogen, mercury free, and arsenic free glass, 92% recycled packaging materials • Privacy Filter Slot • Microsoft® Windows® 7 certified
VESA-compliant ² Power management Ergonomics Emission standards Environmental	VESA DDC2B/CI, VESA DPMS-compliant ENERGY STAR [®] 5.0 ISO 9241-307 MPR-2, MPR-3A, FCC Class B TCO (TCO Certified Edge), WEEE, RoHS, EPEAT™ Gold rating	 <p>ThinkVision L2251x Wide Monitor</p>
Preset resolutions	VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA+: 1440x900 UXGA: 1600x1000 WSXGA+: 1680x1050 Presets / user settings Standard presets: 24; user settings: 20	
Viewing adjustments Rotating screen On screen display Control features USB hub Camera Multiple input Monitor connectors Signal cables Mounting features Security	Tilt: 30° back, 0° forward; lift: 4.3" (110mm); swivel: +/-45°; detachable stand Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller) On screen display with digital user controls (8 languages) Direct access (buttons on front) for automatic image setup USB 2.0 Hub (1 port into PC, 3 ports for accessories) Integrated camera (3.0 megapixel) and microphone Dual input (two different PCs attach to two different connectors; one PC shows image; select via button) (1) VGA 15-pin D-shell, analog, blue (2) DisplayPort, digital, black, HDCP-compliant (1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, DisplayPort at each end, digital, 1.8 meter Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI [®] (100mm mount) Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)	
Ship group	Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter DisplayPort cable, 1.8 meter USB cable, 1.8 meter black power cord	

Limited Warranty <ul style="list-style-type: none"> ⇒ 3 year limited warranty⁴ ⇒ International Warranty Service⁵ ⇒ Rapid Replacement Service at 1-800-426-7378 ⇒ Replacement normally arrives in two business days, excluding holidays ⇒ Lenovo pays all shipping costs for valid warranty claims⁶ ⇒ Service upgrade options⁷ <ul style="list-style-type: none"> • 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209) • 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212) • 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233) • 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9216) • 4 year, mail exchange (51J0589) • 5 year, mail exchange (51J0590) ⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴ 	Accessories <table> <tr> <td>ThinkVision Soundbar</td> <td>45K1263</td> </tr> <tr> <td>Kensington® MicroSaver® Cable Lock</td> <td>73P2582</td> </tr> <tr> <td>Kensington Twin Head Cable Lock</td> <td>45K1620</td> </tr> <tr> <td>ThinkPad Convertible Monitor Stand</td> <td>40Y7620</td> </tr> <tr> <td>ThinkVision TFT Radial Arm⁹</td> <td>19K4464</td> </tr> </table> <p>See details at www.lenovo.com/support/monitoraccessories</p> <p>See all monitors at www.lenovo.com/thinkvision</p>	ThinkVision Soundbar	45K1263	Kensington® MicroSaver® Cable Lock	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
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Name Case color Type-model Panel Viewable image size Max view area (W x H) Optimum resolution Maximum resolution Aspect ratio Pixel pitch (mm) Dot/Pixel per Inch Brightness Contrast ratio Pixel response time Color gamut Anti-reflective Vertical frequency Horizontal frequency Viewing angle at 10:1 CR Stand Bezel width Dimensions (HxWxD) Power supply Weight Limited warranty⁴ Available date	L2440p Wide Flat Panel Monitor Business black 4420-HB2 TFT-LCD, twisted nematic (TN), CCFL backlight 24.0" (610mm) diagonal 20.4" x 12.8" (518.4mm x 324.0mm) 1920x1200 at 60Hz 1920x1200 at 60Hz (205MHz max pixel rate) 16:10 .270mm 94 dpi 300 nits or cd/m ² (typical) 1000:1 (typical) 5ms (typical) 72% Anti-reflective, anti-glare 50 to 75Hz 30 to 94kHz 170° (+/- 85°) horizontal, 160° (+/- 80°) vertical Tilt, swivel, pivot, and height adjustable stand <i>Sides: 0.78" (19.9mm); top: 0.78" (19.9mm); bottom: 1.12" (28.4mm)</i> 15.54-19.87" H x 22" W x 8.04-10.13" D; 394.8-504.8mm H x 559.6mm W x 204.3-257.3mm D 35 watts typical, 50 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 17.84 lb; 8.09kg 3 year (includes backlight) October 2008	Features <ul style="list-style-type: none"> • Widescreen 24-inch monitor • Supports WUXGA 1920x1200 resolution • High Definition (HD) ready; supports 1080p video • Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing • Detachable rear stand cable cover and clip to hide cables • Carrying handle • 65% recycled packaging materials • Microsoft® Windows® Vista® Premium certified
VESA-compliant² Power management Ergonomics Pixel defect Emission standards Environmental	VESA DDC2B/CI, VESA DPMS-compliant ENERGY STAR® 5.0 ISO 13406 Part 2 ¹ ISO 13406-2 Class II pixel defect standard MPR-2, MPR-3A, FCC Class B TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating , GREENGUARD® certified	
Preset resolutions	VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA: 1360x768 WXGA+: 1440x900 UXGA: 1600x1200 WSXGA+: 1680x1050 WUXGA: 1920x1200	ThinkVision L2440p Wide Monitor
Presets / user settings	Standard presets: 27; user settings: 20	
Viewing adjustments Rotating screen On screen display Control features USB hub Multiple input Monitor connectors	<i>Tilt: 30° back, 0° forward; lift: 4.3" (110mm); swivel: +/-45°; detachable stand</i> Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller), On screen display with digital user controls (8 languages) Direct access (buttons on front) for automatic image setup USB 2.0 Hub (1 port into PC, 4 ports for accessories) Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button) (1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, HDCP-compliant (1) detachable, VGA 15-pin D-shell at each end, analog, 2.2 meter (2) detachable, DVI-D at each end, digital, 2.2 meter	
Signal cables	Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI® (100mm mount) Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)	
Mounting features Security		
Ship group	Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 2.2 meter analog signal cable, 2.2 meter digital signal cable, 2.2 meter USB cable, 1.8 meter black power cord	

Limited Warranty <ul style="list-style-type: none"> ⇒ 3 year limited warranty⁴ ⇒ International Warranty Service⁵ ⇒ Rapid Replacement Service at 1-800-426-7378 ⇒ Replacement normally arrives in two business days, excluding holidays ⇒ Lenovo pays all shipping costs for valid warranty claims⁶ ⇒ Service upgrade options:⁷ <ul style="list-style-type: none"> • 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209) • 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212) • 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233) • 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9216) • 4 year, mail exchange (51J0589) • 5 year, mail exchange (51J0590) ⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴ 	Accessories <table> <tr> <td>ThinkVision Soundbar</td> <td>45K1263</td> </tr> <tr> <td>Kensington® MicroSaver® Cable Lock</td> <td>73P2582</td> </tr> <tr> <td>Kensington Twin Head Cable Lock</td> <td>45K1620</td> </tr> <tr> <td>ThinkPad Convertible Monitor Stand</td> <td>40Y7620</td> </tr> <tr> <td>ThinkVision TFT Radial Arm⁹</td> <td>19K4464</td> </tr> </table> <p>See details at www.lenovo.com/support/monitoraccessories</p> <p>See all monitors at www.lenovo.com/thinkvision</p>	ThinkVision Soundbar	45K1263	Kensington® MicroSaver® Cable Lock	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
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ThinkVision® USB Soundbar
(40Y7616)



ThinkVision Soundbar
(45K1263)



Lenovo USB-to-DVI Monitor Adapter
(45K5296)



Lenovo DisplayPort to VGA Monitor Cable
(57Y4393)

Lenovo DisplayPort to Single-link DVI-D Monitor Cable
(45J7915)



Kensington® MicroSaver® Cable Lock from Lenovo
(73P2582)



Kensington Twin Head Cable Lock from Lenovo
(45K1620)



Lenovo Easy Reach Monitor Stand
(55Y9258)



ThinkVision TFT Radial Arm
(19K4464)

Monitor Accessories⁴⁶ (all part numbers listed are US option P/N)
 Lenovo USB-to-DVI Monitor Adapter ** 45K5296 *ann 05/12/09*
 Lenovo DisplayPort to VGA Monitor Cable ** 57Y4393 *ann 08/04/09*
 DisplayPort to Single-link DVI-D Cable ** 45J7915 *ann 08/05/08*
 ** Supports a maximum 1920 x 1200 monitor resolution.
 ThinkVision® USB Soundbar 40Y7616 *ann 08/23/05*
 ThinkVision Soundbar 45K1263 *ann 09/16/08*
 Kensington® MicroSaver® Cable Lock 73P2582 *ann 12/29/03*
 Kensington Twin Head Cable Lock 45K1620 *ann 09/30/08*
 Lenovo Easy Reach Monitor Stand 55Y9258 *ann 09/22/09*
 Radial Arm 19K4464 *ann 05/05/00*

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

Compatibility matrix

	USB-to-DVI Adapter (45K5296)	DisplayPort to VGA Cable (57Y4393)	DisplayPort to DVI-D Cable (45J7915)	ThinkVision USB Soundbar (40Y7616)	ThinkVision Soundbar (45K1263)	MicroSaver Cable Lock (73P2582)	Twin Head Cable Lock (45K1620)	Easy Reach Monitor Stand (55Y9258)	Radial Arm (19K4464)
L1711p	x	x	x		x	x	x	x	x
D186		x				x	x	x	x
L197	x	x	x	x		x	x	x	x
L1900p	x	x	x		x	x	x	x	x
L1951p	x	x	x		x	x	x	x	x
L2060	x	x	x			x	x	x	x
L215	x	x	x		x	x	x	x	x
L2250p	x	x	x		x	x	x	x	x
L2251p	x	x			x	x	x	x	x
L2251x	x	x			x	x	x	x	x
L2440p	x	x	x		x	x	x	x	x
L2461x		x				x	x	x	x
<i>End of marketing</i>									
L151	x	x		x		x	x	x	x
L151p	x	x	x	x		x	x	x	x
L171	x	x		x		x	x	x	x
L171p	x	x	x	x		x	x	x	x
L172	x	x		x		x	x	x	x
L174	x*	x	x	x		x	x	x	x
L1700p	x	x	x	x		x	x	x	x
D185	x	x	x		x	x	x	x	x
L190x	x	x	x	x		x	x	x	x
L191	x	x		x		x	x	x	x
L192p	x	x	x	x		x	x	x	x
L193p	x	x	x	x		x	x	x	x
L194	x	x	x	x		x	x	x	x
L1940p	x	x	x	x		x	x	x	x
L200p	x	x	x	x		x	x	x	x
L201p	x	x	x	x		x	x	x	x
L215p	x	x			x	x	x	x	x
L220x	x	x		x		x	x	x	x
L2240p	x	x	x	x		x	x	x	x
L2440x	x	x	x		x	x	x	x	x

* Character "x": option supported on monitor

More information at www.lenovo.com/support/monitoraccessories

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

¹ **ISO-compliant:** Compliance with ISO 9241 Part 3, ISO Part 7, ISO Part 8, and/or ISO 13406 Part 2 is dependent on a complete ISO-capable platform of a system unit, monitor, video subsystem, operating system and fonts.

² **VESA:** Requires attachment to suitably configured system with similarly enabled operating system.

³ **ENERGY STAR:** As an ENERGY STAR partner, Lenovo has determined that this product meets the ENERGY STAR 4.0 or 4.1 guidelines for energy efficiency. Requires attachment to suitably configured system.

⁴ **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

⁵ **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

⁶ **Lenovo pays all shipping costs** for warranty repairs during limited warranty period.

⁷ **ThinkPlus and Lenovo Care Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. P&L means parts and labor. P/U means pick-up. See terms and conditions for complete details and restrictions.

⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. In the United States call 1-800-426-7378. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For machines with EasyServ or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.

⁹ **Radial Arm Kit:** Designed for business environment; radial arm must be installed in accordance with instructions provided.

¹⁰ **TAA:** Monitor is compliant with the U.S. Federal Government's country-of-origin requirements prescribed in 48 C.F.R. Subpart 25.4; Trade Act Agreement (TAA) model.

¹¹ **Post-warranty annual maintenance agreement:** Service begins at the end of the base warranty or the end of any other applied warranty and maintenance option, whichever occurs last. Service delivery is not available the same day the maintenance agreement is purchased. Maintenance agreements must be purchased and the registration successfully completed prior to the service being available.

¹² **Halogen:** Less than 900 Parts Per Million. Low halogen is defined in accordance with IPC-401B and draft IPC-J-STD 709 Class 1 requirements.

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Classic White



Lenovo IdeaPad S10
Deep Blue



Lenovo IdeaPad S10
Bold Black, Ruby Red,
Deep Blue, Classic White, Pastel Pink



Lenovo IdeaPad S10
Pastel Pink



Lenovo IdeaPad S10
Ruby Red



Lenovo IdeaPad S10
Ruby Red

Part number	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
59019958	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB ⁸	11b/g ¹¹	Blue	None	3-cell	XP Home	Apr 09
59019954	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Pink	None	3-cell	XP Home	Apr 09
59019949	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Apr 09
59019956	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	White	None	3-cell	XP Home	Apr 09
59019952	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Red	None	3-cell	XP Home	Apr 09
59019947	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	6-cell	XP Home	Apr 09
59019955	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	White	None	6-cell	XP Home	Apr 09

- **Lenovo's netbook: smaller and lighter than a notebook**
- **10.2" widescreen, anti-glare display with LED backlight**
- **Super-slim (starts at 0.9 inches thin), ultra-light (weighs just over 2.43 pounds)**
- **Multiple color choices: black, white, red, blue, or pink (piano finish for red, blue, pink)**
- **Touch pad supports multi-touch function to enhance the experience of user control**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face.**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**
- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype® without booting Windows**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® XP Home Edition	Preloaded applications ¹⁴ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Norton Internet Security™ (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Lenovo Energy Management Software• VeriFace™
Memory	1GB std / 1GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket <i>Non-italics</i> : standard memory 1GB in socket; no socket available			
Diskette drive	None			
External combo	None			
SATA disk	160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable			
Widescreen display	10.2" (259.1mm) WSVGA (1024x600) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		Available at these retailers <ul style="list-style-type: none">• B&H™• TigerDirect• Amazon.com• J&R™	40-watt AC adapter RoHS-compliant
Camera	Camera on top of screen, 1.3-megapixel, fixed focus			
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE			
Keyboard	6-row, 80-key, 85% size, multimedia Fn keys, recovery key, wireless on/off button			
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch			
Dimensions ³	<i>3-cell:</i> (WxDxH): 9.8" x 7.2" x 0.9-1.1"; 250mm x 183mm x 22-27.5mm		Limited Warranty ¹² <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Depot repair service¹⁹⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 1-year accidental damage protection via depot 45K5979• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 45K5970• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 45K5985⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686	
Weight ²	<i>6-cell:</i> (WxDxH): 9.8" x 7.7" x 0.9-1.4"; 250mm x 196mm x 22-36mm			
Case color	<i>3-cell:</i> starting at 2.43 lb (1.1 kg) <i>6-cell:</i> starting at 2.87 lb (1.3 kg) <i>Top:</i> multiple color choices: black, white, red, blue, or pink (piano finish for red, blue, pink) <i>Bottom:</i> color matches top color			
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic			
Battery - type	Lithium Ion, 3-cell			
Battery - life ¹⁰	<i>3-cell:</i> up to 3.0 hr; <i>6-cell:</i> up to 6.0 hr			
Chipset	Mobile Intel 945GSE Express Chipset (Graphics Memory Controller Hub), ICH7M I/O Controller Hub (SATA 1.5Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)			
ExpressCard/34	One slot (ExpressCard/34)			
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)			
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)			
TV tuner	None			
Mini PCI Express	One Mini PCI Express slot			
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312			
Bluetooth™	None			
Modem	None			
Ethernet	10/100 ethernet, Broadcom® BCM5906, PCI 2.3			
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm)			
Security	Power-on password, supervisor password, security keyhole,			
Fingerprint reader	None			

See footnotes for important warranty information

Ⓜ US models announced April 22, 2009; previous models on April 7, 2009

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(MRA1-4) June 2009

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
4231-2BU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB ⁸	11b/g ¹¹	Black	None	3-cell	XP Home	Aug 08
4231-3AU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Black	None	3-cell	XP Home	Sep 08
4231-2CU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	White	None	3-cell	XP Home	Aug 08
4231-2DU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Red	None	3-cell	XP Home	Aug 08
4231-36U	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Blue	None	3-cell	XP Home	Oct 08
4231-2AU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Pink	None	3-cell	XP Home	Dec 08
4231-3CU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Sep 08
4231-3DU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Sep 08
4231-35U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Dec 08
4231-34U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	White	None	3-cell	XP Home	Dec 08
4231-33U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Red	None	3-cell	XP Home	Dec 08
4231-37U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Blue	None	3-cell	XP Home	Oct 08
4231-32U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Pink	None	3-cell	XP Home	Dec 08

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- **Multiple color choices: black, white, red, blue, or pink (piano finish for red, blue, pink)**
- **Touch pad supports multi-touch function to enhance the experience of user control**
- **Integrated 1.3 megapixel camera**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® XP Home Edition Preloaded applications ¹⁴ <ul style="list-style-type: none"> • Lenovo® OneKey Recovery • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Lenovo Energy Management Software
Memory	512MB or 1GB std / 1.5GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; <i>Italics:</i> standard memory 512MB soldered to systemboard, 512MB in socket; no sockets available; <i>Non-italics:</i> standard memory 512MB soldered to systemboard; one socket available	
Diskette drive	None	
External combo SATA disk	None 80GB (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable	
Widescreen display	10.2" (259.1mm) WSVGA (1024x600) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	Available at these retailers • lenovo.com • Fry's Limited Warranty ¹² <ul style="list-style-type: none"> ⇒ 1-year parts and labor ⇒ Depot repair service¹⁹ ⇒ Service upgrade options (in eligible locations):⁹ <ul style="list-style-type: none"> • 1-year accidental damage protection via depot 45K5979 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 45K5970 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 45K5985 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE	
Keyboard	6-row, 80-key, 85% size, multimedia Fn keys, recovery key, wireless on/off button	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³	(WxDxH): 9.8" x 7.2" x 0.9-1.1"; 250mm x 183mm x 22-27.5mm	
Weight ²	3-cell: starting at 2.43 lb (1.1 kg)	
Case color	Top: multiple color choices: black, white, red, blue, or pink (piano finish for red, blue, pink) Bottom: color matches top color	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion, 3-cell 2600 mAh	
Battery - life ¹⁰	3-cell: up to 3.0 hr	
Chipset	Mobile Intel 945GSE Express Chipset (Graphics Memory Controller Hub), ICH7M I/O Controller Hub (SATA 1.5Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)	
ExpressCard/34	One slot (ExpressCard/34)	
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)	
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)	
TV tuner	None	
Mini PCI Express	One Mini PCI Express slot	
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312	
Bluetooth™	None	
Modem	None	
Ethernet	10/100 ethernet, Broadcom® BCM5906, PCI 2.3	
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm)	
Security	Power-on password, supervisor password, security keyhole,	
Fingerprint reader	None	

See footnotes for important warranty information

US models announced December 10, 2008; previous models on August 19, September 9, or October 7, 2008

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(MRA1-1) June 2009

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
4231-A8U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB ⁸	11b/g ¹¹	Black	None	3-cell	XP Home	Mar 09
4231-A9U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	White	None	3-cell	XP Home	Mar 09
4231-AAU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Pink	None	3-cell	XP Home	Mar 09
4231-ABU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Red	None	3-cell	XP Home	Mar 09
4231-ACU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Blue	None	3-cell	XP Home	Mar 09
4231-ADU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Pink	None	6-cell	XP Home	Mar 09
4231-AEU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Red	None	6-cell	XP Home	Mar 09
4231-AFU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	White	None	6-cell	XP Home	Mar 09
4231-AGU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	6-cell	XP Home	Mar 09
4231-AJU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Blue	None	6-cell	XP Home	Mar 09

- **Lenovo's netbook: smaller and lighter than a notebook**
- **10.2" widescreen, anti-glare display with LED backlight**
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- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype® without booting Windows**

Positioning Processor	<i>Netbook; consumer markets</i> Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® XP Home Edition Preloaded applications ¹⁴ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Norton Internet Security™ (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Lenovo Energy Management Software• VeriFace™ Available at these retailers <ul style="list-style-type: none">• lenovo.com 40-watt AC adapter RoHS-compliant
Memory	1GB std / 1GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; <i>Non-italics:</i> standard memory 1GB in socket; no socket available		
Diskette drive	None		
External combo	None		
SATA disk	160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable		
Widescreen display	10.2" (259.1mm) WSVGA (1024x600) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE		
Keyboard	6-row, 80-key, 85% size, multimedia Fn keys, recovery key, wireless on/off button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	<i>3-cell:</i> (WxDxH): 9.8" x 7.2" x 0.9-1.1"; 250mm x 183mm x 22-27.5mm		
Weight ²	<i>6-cell:</i> (WxDxH): 9.8" x 7.7" x 0.9-1.4"; 250mm x 196mm x 22-36mm		
Case color	<i>3-cell:</i> starting at 2.43 lb (1.1 kg) <i>6-cell:</i> starting at 2.87 lb (1.3 kg) <i>Top:</i> multiple color choices: black, white, red, blue, or pink (piano finish for red, blue, pink) <i>Bottom:</i> color matches top color		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 3-cell or 6-cell		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.0 hr; <i>6-cell:</i> up to 6.0 hr		
Chipset	Mobile Intel 945GSE Express Chipset (Graphics Memory Controller Hub), ICH7M I/O Controller Hub (SATA 1.5Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
Mini PCI Express	One Mini PCI Express slot		
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312		
Bluetooth™	None		
Modem	None		
Ethernet	10/100 ethernet, Broadcom® BCM5906, PCI 2.3		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm)		
Security	Power-on password, supervisor password, security keyhole,		
Fingerprint reader	None		

| **Limited Warranty**¹² ⇒ **1-year parts and labor** ⇒ **Depot repair service**¹⁹ ⇒ **Service upgrade options (in eligible locations):**⁹ - **1-year accidental damage protection via depot** 45K5979 - **3-year Lenovo Onsite Repair**¹³ 9x5 Next Business Day 45K5970 - **3-year Lenovo Onsite Repair**¹³ 9x5 Next Business Day with accidental damage protection 45K5985 ⇒ **24x7**¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686 | | |

See footnotes for important warranty information
US models announced March 17, 2009

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Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	Disk	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Color	Bluetooth	Battery cells	Quick Start	Preload	Avail date
4333-36U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB ²	11b/g ¹¹		Black		3-cell	Quick	XP Home	Oct 09
4333-37U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g		Black		6-cell	Quick	XP Home	Oct 09
4333-38U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g		Black	Bluetooth	6-cell	Quick	XP Home	Oct 09
4333-22U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	WWAN	Black		3-cell	Quick	XP Home	May 09
4333-25U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	WWAN	Black		6-cell	Quick	XP Home	May 09
4333-2TU	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	WWAN	Black	Bluetooth	6-cell	Quick	XP Home	May 09
4333-2WU	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	AT&T	Black	Bluetooth	6-cell	Quick	XP Home	Oct 09

- **Lenovo's netbook: smaller and lighter than a notebook**
- **10.1" widescreen display with LED backlight**
- **Super-slim (starting at 0.9 inches thin), ultra-light (starting at 2.43 pounds)**
- **Integrated WWAN adapter**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Integrated camera**
- **(Select models) Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype® without booting Windows**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® XP Home Edition Preloaded applications ¹⁴ <ul style="list-style-type: none">• Norton Internet Security™ (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Lenovo Energy Management Software• VeriFace™• Lenovo Quick Start• Ericsson Connection Manager
Memory	1GB std / 2GB* max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; * Windows XP Home models can only be shipped with maximum of 1GB in memory <i>Non-italics:</i> standard memory 1GB soldered to systemboard; one socket available		
External combo SATA disk	None 160GB (5400 rpm) HDD / SATA 1.5Gb/s, 9.5mm high, 2.5" wide, not removable		
Widescreen display	10.1" (256.5mm) WSVGA (1024x576) TFT color, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE		
Keyboard	6-row, 80-key, 85% size, Fn keys, Novo key, wireless on/off button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	<i>3-cell:</i> (WxDxH): 9.8" x 7.2" x 0.9-1.1"; 250mm x 183mm x 22-27.5mm <i>6-cell:</i> (WxDxH): 9.8" x 7.7" x 0.9-1.4"; 250mm x 196mm x 22-36mm		
Weight ²	<i>3-cell:</i> starting at 2.65 lb (1.2 kg) <i>6-cell:</i> starting at 3.09 lb (1.4 kg)		
Case color	<i>Top:</i> black <i>Bottom:</i> black		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 3-cell 2600 mAh or 6-cell 4800 mAh		
Battery - life ¹⁰	<i>3-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 5.0 hr		
Chipset	Mobile Intel 945GSE Express Chipset (Graphics Memory Controller Hub), ICH7M I/O Controller Hub (SATA 1.5Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/34	None		
Multicard reader	4-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
Mini PCI Express	Two Mini PCI Express slots		
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312		
WWAN	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter, GPRS/WCDMA/HSPA		
AT&T	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, service contract required with AT&T		
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator		
Modem	None		
Ethernet	10/100 ethernet, Broadcom® BCM5906, PCI 2.3		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm)		
Security	Power-on password, supervisor password, security keyhole		
Fingerprint reader	None		

40-watt AC adapter RoHS-compliant
Limited Warranty ¹² ⇒ Split warranty: 1-year for display, disk, systemboard; 90-day for other parts ⇒ EasyServ™ depot repair service ¹⁹ ⇒ International Warranty Service ¹⁷ ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 800-426-7378

See footnotes for important warranty information

US models announced October 20, 2009; previous models on May 27 or September 30, 2009

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(KRL2-1) November 2009

ideapad



Lenovo IdeaPad S10-2
Gray



Lenovo IdeaPad S10-2
Gray



Lenovo IdeaPad S10-2
Black, White, Gray, and Pink



Lenovo IdeaPad S10-2
White



Lenovo IdeaPad S10-2
Pink



Lenovo IdeaPad S10-2
Pink

Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Top color	Bluetooth	Battery	Preload	Avail date
2957-L2U	Atom N270	1.60	1GB	10.1" WSVGA	0.3M	GMA	160GB ⁸	11b/g ¹¹	Black (pattern)		6-cell	XP Home	Sep 09
2957-7XU	Atom N270	1.60	1GB	10.1" WSVGA	0.3M	GMA	160GB	11b/g	Black (pattern)		6-cell	XP Home	Dec 09
2957-22U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	Black (pattern)		6-cell	XP Home	May 09
2957-23U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	Gray (pattern)		6-cell	XP Home	May 09
2957-29U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	Gray (pattern)		6-cell	XP Home	Sep 09
2957-L3U	Atom N270	1.60	1GB	10.1" WSVGA	0.3M	GMA	160GB	11b/g	White (pattern)		6-cell	XP Home	Sep 09
2957-7VU	Atom N270	1.60	1GB	10.1" WSVGA	0.3M	GMA	160GB	11b/g	White (pattern)		6-cell	XP Home	Dec 09
2957-24U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	White (pattern)		6-cell	XP Home	May 09
2957-25U	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	Pink (pattern)		6-cell	XP Home	May 09
2957-2AU	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	Pink (pattern)		6-cell	XP Home	Sep 09
2957-6AU	Atom N280	1.66	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	White (nature)	Bluetooth	6-cell	XP Home	Aug 09

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- **10.1" widescreen, glossy display with LED backlight**
- **Super-slim (starts at 0.8 inch thin), ultra-light (weighs just over 2.20 pounds)**
- **Multiple color choices: black, white, gray, or pink, with pattern**
- **Touch pad supports multi-touch function for enhanced user experience**
- **Integrated camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**
- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype™ without booting into Windows**

Positioning	Processor		Processor		Preloaded operating system ²⁰	
	Netbook; consumer markets		Intel® Atom™ Processor N270 or N280 with single-core, Hyper-Threading technology, and 512KB L2 cache; N270: 533MHz system bus; N280: 667MHz system bus		- Genuine Windows® XP Home Edition	
Memory	1GB std / 2GB max* / PC2-5300 667MHz DDR2, non-parity, single-channel, one 200-pin SO-DIMM socket; * Windows XP Home models can only be shipped with maximum of 1GB in memory		Non-italics: standard memory 1GB in socket; no socket available		Preloaded applications ¹⁴ (only some listed)	
Diskette drive	None				<ul style="list-style-type: none">• Lenovo® OneKey Recovery• Norton Internet Security™ (90 days of virus definitions)• Adobe® Reader®• Windows Live™ Toolbar• Lenovo Energy Management Software• VeriFace™• Lenovo Quick Start• Microsoft® Office 2007 Trial (60-day)	
External combo	None					
SATA disk	160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable					
Widescreen display	10.1" (256.5mm) WSVGA (1024x600) TFT color, VibrantView (glossy); LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio					
Camera	Camera on top of screen, 0.3-megapixel or 1.3-megapixel, fixed focus					
Graphics	Intel Graphics Media Accelerator 950 (GMA 950), in 945GSE					
Keyboard	89% full size keyboard, Fn keys, recovery key, Quick Start button					
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch					
Dimensions ³	3-cell: (WxDxH): 10.2" x 7.2" x 0.7-1.0"; 258mm x 183mm x 18-25.4mm		6-cell: (WxDxH): 10.2" x 7.6" x 0.7-1.8"; 258mm x 194mm x 18-44.7mm			
Weight ²	3-cell: starting at 2.20 lb (1.0 kg)		6-cell: starting at 2.65 lb (1.2 kg)			
Case color	Top: black, white, gray, or pink, with pattern		Palm rest: color matches top color			
	Bottom: black bottom for black and gray top, white bottom for white and pink top					
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic					
Battery - type	Lithium Ion, 6-cell					
Battery - life ¹⁰	3-cell: up to 3.0 hr; 6-cell: up to 6.0 hr					
Chipset	Mobile Intel 945GSE Express Chipset (Graphics Memory Controller Hub), ICH7M I/O Controller Hub (SATA 1.5Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)					
ExpressCard/34	None					
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)					
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)					
TV tuner	None					
Mini PCI Express	Two Mini PCI Express slot					
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312					
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator					
Modem	None					
Ethernet	10/100 ethernet, RealTek® RTL8103EL, PCI 2.3					
Audio support	High Definition (HD) Audio, RealTek ALC272 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm), Dolby® Headphone™ certificated					
Security	Power-on password, supervisor password, security keyhole					
Fingerprint reader	None					

See footnotes for important warranty information

Ⓔ US models announced December 17, 2009; previous models on May 27 or September 10, 2009

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Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Top color	Bluetooth	Battery	Win7 preload	Avail date
2957-7CU	Atom N270	1.60	1GB	10.1" WSVGA	0.3M	GMA	160GB ⁸	11b/g ¹¹	White (pattern)		6-cell	Starter	Dec 09
2957-7DU	Atom N270	1.60	1GB	10.1" WSVGA	0.3M	GMA	160GB	11b/g	Black (pattern)		6-cell	Starter	Dec 09
2957-7LU	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	Pink (pattern)		6-cell	Starter	Dec 09
2957-7MU	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	White (nature)	Bluetooth	6-cell	Starter	Dec 09
2957-7NU	Atom N270	1.60	1GB	10.1" WSVGA	1.3M	GMA	160GB	11b/g	White (flower sea)	Bluetooth	6-cell	Starter	Dec 09

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- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype™ without booting into Windows**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N270 or N280 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Starter Edition Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• McAfee® VirusScan® Plus 2009 (30 days of virus definitions)• Adobe® Reader®• Windows Live™ Toolbar• Lenovo Energy Management Software• VeriFace™• Lenovo Quick Start
Memory	1GB std / 2GB max* / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; * Windows XP Home models can only be shipped with maximum of 1GB in memory <i>Non-italics</i> : standard memory 1GB in socket; no socket available		
Diskette drive	None		
External combo	None		
SATA disk	160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable		
Widescreen display	10.1" (256.5mm) WSVGA (1024x600) TFT color, VibrantView (glossy); LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 0.3-megapixel or 1.3-megapixel, fixed focus		
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE		
Keyboard	89% full size keyboard, Fn keys, recovery key, Quick Start button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	<i>3-cell:</i> (WxDxH): 10.2" x 7.2" x 0.7-1.0"; 258mm x 183mm x 18-25.4mm <i>6-cell:</i> (WxDxH): 10.2" x 7.6" x 0.7-1.8"; 258mm x 194mm x 18-44.7mm		
Weight ²	<i>3-cell:</i> starting at 2.20 lb (1.0 kg) <i>6-cell:</i> starting at 2.65 lb (1.2 kg)		
Case color	<i>Top:</i> black, white, or pink, with pattern <i>Palm rest:</i> color matches top color <i>Bottom:</i> black bottom for black and gray top, white bottom for white and pink top		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 6-cell		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.0 hr; <i>6-cell:</i> up to 6.0 hr		
Chipset	Mobile Intel 945GSE Express Chipset (Graphics Memory Controller Hub), ICH7M I/O Controller Hub (SATA 1.5Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/34	None		
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
Mini PCI Express	Two Mini PCI Express slot		
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312		
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator		
Modem	None		
Ethernet	10/100 ethernet, RealTek® RTL8103EL, PCI 2.3		
Audio support	High Definition (HD) Audio, RealTek ALC272 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm), Dolby® Headphone™ certified		
Security	Power-on password, supervisor password, security keyhole		
Fingerprint reader	None		

Limited Warranty ¹²		
⇨	1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter	
⇨	Mail In repair service	
⇨	Service upgrade options (in eligible locations): ⁹	
	• 2-year Mail-In warranty	78Y1544
	• 3-year Mail-In warranty	78Y1547
	• 1-year accidental damage protection via Mail-In	78Y1543
	• 2-year accidental damage protection via Mail-In	78Y1545
	• 3-year accidental damage protection via Mail-In	78Y1548
⇨	24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686	

See footnotes for important warranty information
 US models announced December 17, 2009

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Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	PCIe Mini card 802.11	PCIe Mini card WWAN	Top color	Bluetooth	Battery	Win7 preload	Avail date
0647-32U	Atom N450	1.66	1GB	10.1" WSVGA	1.3M	GMA 3150	160GB ⁸	11b/g/n ²⁸		Red		6-cell	Starter	Jan 10
0647-33U	Atom N450	1.66	1GB	10.1" WSVGA	1.3M	GMA 3150	160GB	11b/g/n		Black		6-cell	Starter	Jan 10
0647-23U	Atom N450	1.66	1GB	10.1" WSVGA	1.3M	GMA 3150	160GB	11b/g/n	WWAN	Black	Bluetooth	6-cell	Starter	Jan 10

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- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype™ without booting into Windows**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N450 with single-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 667MHz) Hyper-Threading Technology, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Starter Edition Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live™ Essential• Lenovo ReadyComm• Lenovo Energy Management Software• Lenovo DirectShare• VeriFace• Quick Start• Lenovo MapLife• Microsoft® Office 2007 Trial (60-day)
Memory	1GB std / 2GB max / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; <i>Non-italics:</i> standard memory 1GB in socket; no socket available		
Optical drive	None		
SATA disk	160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable, Active Protection System™		
Widescreen display	10.1" (256.5mm) WSVGA (1024x600) TFT color, VibrantView (glossy); LED backlight , 180 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor, external monitor support via analog VGA DB-15 connector		
Keyboard	Full size keyboard, Fn keys, recovery key, Quick Start button		
Touch pad	One-piece touch pad with two button function		
Dimensions ³	<i>3-cell:</i> (WxDxH): 10.6" x 6.6" x 0.6-1.2"; 268mm x 168mm x 16-30.95mm <i>6-cell:</i> (WxDxH): 10.6" x 6.6" x 0.6-1.5"; 268mm x 168mm x 16-37.45mm		
Weight ²	<i>3-cell:</i> starting at 2.43 lb (1.1 kg) <i>6-cell:</i> starting at 2.76 lb (1.25 kg)		
Case color	<i>Top:</i> black or red, with pattern <i>bottom:</i> black <i>Palm rest:</i> Gray		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 6-cell		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.5 hr; <i>6-cell:</i> up to 7.0 hr		
Chipset	Intel NM10 Express Chipset		
ExpressCard/34	None		
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card adapter, Broadcom® BCM4313		
WWAN	<i>Some:</i> Wireless WAN, Ericsson F3607gw, PCIe Mini Card adapter, WCDMA/HSPA		
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless + EDR, LED indicator		
Modem	None		
Ethernet	10/100 ethernet, RealTek® RTL8103EL		
Audio support	High Definition (HD) Audio, RealTek ALC272 codec / stereo speakers (1.5 watt x 2) / dual array microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm), Dolby® Headphone™ certificated		
Security	Power-on password, supervisor password, hard disk password		
Fingerprint reader	None		
30-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant			
Limited Warranty ¹² ⇒ 1-year warranty*: * 1-year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇒ Mail In repair service ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 2-year Mail-In warranty 78Y1544• 3-year Mail-In warranty 78Y1547• 1-year accidental damage protection via Mail-In 78Y1543• 2-year accidental damage protection via Mail-In 78Y1545• 3-year accidental damage protection via Mail-In 78Y1548 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686			

See footnotes for important warranty information
US models announced January 18, 2010

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Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	PCIe Mini card 802.11	PCIe Mini card WWAN	Top color	Bluetooth	Battery	Win7 preload	Avail date
0647-29U	Atom N450	1.66	1GB	10.1" WSVGA	0.3M	GMA 3150	250GB ⁸	11b/g/n ²⁸	None	Black	None	6-cell	Starter	Jan 10

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Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N450 with single-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 667MHz) Hyper-Threading Technology, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Starter Edition Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live™ Essential• Lenovo ReadyComm• Lenovo Energy Management Software• Lenovo DirectShare• VeriFace• Quick Start• Lenovo MapLife• Microsoft® Office 2007 Trial (60-day)
Memory	1GB std / 2GB max / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; <i>Non-italics</i> : standard memory 1GB in socket; no socket available		
Optical drive	None		
SATA disk	250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable, Active Protection System™		
Widescreen display	10.1" (256.5mm) WSVGA (1024x600) TFT color, VibrantView (glossy); LED backlight , 180 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor, external monitor support via analog VGA DB-15 connector		
Keyboard	Full size keyboard, Fn keys, recovery key, Quick Start button		
Touch pad	One-piece touch pad with two button function		
Dimensions ³	<i>3-cell:</i> (WxDxH): 10.6" x 6.6" x 0.6-1.2"; 268mm x 168mm x 16-30.95mm <i>6-cell:</i> (WxDxH): 10.6" x 6.6" x 0.6-1.5"; 268mm x 168mm x 16-37.45mm		30-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
Weight ²	<i>3-cell:</i> starting at 2.43 lb (1.1 kg) <i>6-cell:</i> starting at 2.76 lb (1.25 kg)		
Case color	<i>Top:</i> black, with pattern <i>bottom:</i> black <i>Palm rest:</i> Gray		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 6-cell		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.5 hr; <i>6-cell:</i> up to 7.0 hr		
Chipset	Intel NM10 Express Chipset		
ExpressCard/34	None		
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card adapter, Broadcom® BCM4313		
WWAN	None		
Bluetooth™	None		
Modem	None		
Ethernet	10/100 ethernet, RealTek® RTL8103EL		
Audio support	High Definition (HD) Audio, RealTek ALC272 codec / stereo speakers (1.5 watt x 2) / dual array microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm), Dolby® Headphone™ certificated		
Security	Power-on password, supervisor password, hard disk password		
Fingerprint reader	None		
			Limited Warranty ¹² ➤ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ➤ Mail In repair service ➤ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 2-year Mail-In warranty 78Y1544• 3-year Mail-In warranty 78Y1547• 1-year accidental damage protection via Mail-In 78Y1543• 2-year accidental damage protection via Mail-In 78Y1545• 3-year accidental damage protection via Mail-In 78Y1548 ➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686

See footnotes for important warranty information
 US model announced January 18, 2010

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ideapad



Lenovo IdeaPad S10-3s
White



Lenovo IdeaPad S10-3s
White



Lenovo IdeaPad S10-3s
White



Lenovo IdeaPad S10-3s
White



Lenovo IdeaPad S10-3s
White



Lenovo IdeaPad S10-3s
White

Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Top color	Bluetooth	Battery	Win7 preload	Avail date
0703-22U	Atom N450	1.66	1GB	10.1" WSVGA	1.3M	GMA 3150	160GB ⁸	11b/g/n ²⁸	None	White	Bluetooth	6-cell	Starter	Apr 10

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Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N450 with single-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 667MHz) Hyper-Threading Technology, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Starter Edition Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live™ Essential• Lenovo ReadyComm• Lenovo Energy Management Software• Lenovo DirectShare• VeriFace• Quick Start• Lenovo MapLife• Microsoft® Office 2007 Trial (60-day)
Memory	1GB std / 2GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; <i>Non-italics</i> : standard memory 1GB in socket; no socket available		
Optical drive	None		
SATA disk	160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable, Active Protection System™		
Widescreen display	10.1" (256.5mm) WSVGA (1024x600) TFT color, VibrantView (glossy); LED backlight , 200 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor, external monitor support via analog VGA DB-15 connector		
Keyboard	Full size keyboard, Fn keys, recovery key, Quick Start button		
Touch pad	One-piece touch pad with two button function		
Dimensions ³	<i>3-cell:</i> (WxDxH): 10.6" x 6.6" x 0.6-1.1"; 270mm x 168mm x 16-28.5mm <i>6-cell:</i> (WxDxH): 10.6" x 6.6" x 0.6-1.4"; 270mm x 168mm x 16-34.3mm		30-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Weight ²	<i>3-cell:</i> starting at 2.43 lb (1.1 kg) <i>6-cell:</i> starting at 2.76 lb (1.25 kg)		
Case color	<i>Top:</i> white <i>bottom:</i> white <i>Palm rest:</i> white		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 6-cell		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.5 hr; <i>6-cell:</i> up to 7.0 hr		
Chipset	Intel NM10 Express Chipset		
ExpressCard/34	None		
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card adapter, Broadcom® chip or Atheros chip		
WWAN	None		
Bluetooth™	Bluetooth 2.1 wireless + EDR, LED indicator		
Modem	None		
Ethernet	10/100 ethernet, Broadcom BCM57790		
Audio support	High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (1.5 W x 2) / dual array microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm), Dolby® Headphone™ certificated		
Security	Administrator password, hard disk password		
Fingerprint reader	None		

Limited Warranty ¹²	
➤ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter	
➤ Mail In repair service	
➤ Service upgrade options (in eligible locations): ⁹	
• 2-year Mail-In warranty	78Y1544
• 3-year Mail-In warranty	78Y1547
• 1-year accidental damage protection via Mail-In	78Y1543
• 2-year accidental damage protection via Mail-In	78Y1545
• 3-year accidental damage protection via Mail-In	78Y1548
➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686	

See footnotes for important warranty information
US model announced April 28, 2010

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Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Top color	Bluetooth	Battery	Win7 preload	Avail date
0703-32U	Atom N450	1.66	1GB	10.1" WSVGA	1.3M	GMA 3150	160GB ⁸	11b/g/n ²⁸	None	White	Bluetooth	3-cell	Starter	Apr 10

- **Lenovo's netbook: smaller and lighter than a notebook**
- **10.1" widescreen, glossy display with LED backlight**
- **Super-slim (starts at 0.6 inch thin)**
- **Integrated camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**
- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype™ without booting into Windows**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N450 with single-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 667MHz) Hyper-Threading Technology, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Starter Edition Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live™ Essential• Lenovo ReadyComm• Lenovo Energy Management Software• Lenovo DirectShare• VeriFace• Quick Start• Lenovo MapLife• Microsoft® Office 2007 Trial (60-day)
Memory	1GB std / 2GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; <i>Non-italics</i> : standard memory 1GB in socket; no socket available		
Optical drive	None		
SATA disk	160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable, Active Protection System™		
Widescreen display	10.1" (256.5mm) WSVGA (1024x600) TFT color, VibrantView (glossy); LED backlight , 200 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor, external monitor support via analog VGA DB-15 connector		
Keyboard	Full size keyboard, Fn keys, recovery key, Quick Start button		
Touch pad	One-piece touch pad with two button function		
Dimensions ³	<i>3-cell:</i> (WxDxH): 10.6" x 6.6" x 0.6-1.1"; 270mm x 168mm x 16-28.5mm <i>6-cell:</i> (WxDxH): 10.6" x 6.6" x 0.6-1.4"; 270mm x 168mm x 16-34.3mm		30-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Weight ²	<i>3-cell:</i> starting at 2.43 lb (1.1 kg) <i>6-cell:</i> starting at 2.76 lb (1.25 kg)		
Case color	<i>Top:</i> white <i>bottom:</i> white <i>Palm rest:</i> white		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 3-cell		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.5 hr; <i>6-cell:</i> up to 7.0 hr		
Chipset	Intel NM10 Express Chipset		
ExpressCard/34	None		
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card adapter, Broadcom® chip or Atheros chip		
WWAN	None		
Bluetooth™	Bluetooth 2.1 wireless + EDR, LED indicator		
Modem	None		
Ethernet	10/100 ethernet, Broadcom BCM57790		
Audio support	High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (1.5 W x 2) / dual array microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm), Dolby® Headphone™ certificated		
Security	Administrator password, hard disk password		
Fingerprint reader	None		
			Limited Warranty ¹² ➤ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ➤ Mail In repair service ➤ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 2-year Mail-In warranty 78Y1544• 3-year Mail-In warranty 78Y1547• 1-year accidental damage protection via Mail-In 78Y1543• 2-year accidental damage protection via Mail-In 78Y1545• 3-year accidental damage protection via Mail-In 78Y1548 ➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686

See footnotes for important warranty information
US model announced April 28, 2010

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ideapad



Lenovo IdeaPad S10-3t



Lenovo IdeaPad S10-3t
(4-cell model with Cosmic Night pattern)



Lenovo IdeaPad S10-3t
(4-cell model)



Lenovo IdeaPad S10-3t
(4-cell model)



Lenovo IdeaPad S10-3t
(4-cell model with Cosmic Wonder pattern)



Lenovo IdeaPad S10-3t
(4-cell model with Cosmic Wonder pattern)

Type-model	Processor	GHz	Memory	Widescreen display	Multi-touch screen	Cam-era	Integrated graphics	SATA disk	PCIe Mini card 802.11	Top color	Blue-tooth	Battery	Win7 preload	Avail date
0651-4FU	Atom N450	1.66	1GB	10.1" WSVGA	Multi	1.3M	GMA 3150	160GB ⁸	11b/g/n ²⁸	Cosmic Night		4-cell	Starter	Jan 10
0651-4EU	Atom N450	1.66	1GB	10.1" WSVGA	Multi	1.3M	GMA 3150	160GB	11b/g/n	Cosmic Wonder		4-cell	Starter	Jan 10
0651-3EU	Atom N470	1.83	2GB	10.1" WSVGA	Multi	1.3M	GMA 3150	250GB	11b/g/n	Cosmic Night	Blue	4-cell	Prem 32	Jan 10

- **Tablet netbook features a multi-touch panel and a durable steel hinge supporting ±180 degree rotation**
- **10.1" widescreen, glossy display with LED backlight**
- **Super-slim (starts at 0.6 inch thin)**
- **Integrated camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**
- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype™ without booting into Windows**

Positioning Processor	Tablet netbook; consumer markets Intel® Atom™ Processor N450 or N470 with single-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 667MHz), integrated graphic controller, Hyper-Threading technology, and 512KB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Starter Edition - Some: Genuine Windows® 7 Home Premium 32 Preloaded applications ¹⁴ (only some listed) • Lenovo® OneKey Recovery • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Lenovo ReadyComm • Lenovo Energy Management Software • Lenovo DirectShare • VeriFace • Quick Start • Lenovo VeriTouch • Lenovo Natural Touch • Microsoft® Research AutoCollage Touch (Home Premium only)
Memory	1GB or 2GB std / 2GB max / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; <i>Non-italics</i> : standard memory in socket; no socket available	
Optical drive	None	Limited Warranty ¹² ⇒ 1-year warranty* : * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇒ Mail In repair service ⇒ Service upgrade options (in eligible locations): ⁹ • 2-year Mail-In warranty 78Y1544 • 3-year Mail-In warranty 78Y1547 • 1-year accidental damage protection via Mail-In 78Y1543 • 2-year accidental damage protection via Mail-In 78Y1545 • 3-year accidental damage protection via Mail-In 78Y1548 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
SATA disk	160GB (5400 rpm) or 250GB (5400 rpm)/ SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable, Active Protection System™	
Widescreen display	10.1" (256.5mm) WSVGA (1024x600) TFT color, VibrantView (glossy); LED backlight , 180 nits, 16:9 aspect ratio, 400:1 contrast ratio, rotatable dual swivel hinge for tablet mode, support display auto roation	
Touch screen type	MultiTouch (touchscreen supports two-finger touch)	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor External monitor support via analog VGA DB-15 connector	
Keyboard	Full size keyboard, Fn keys	
Touch pad	One-piece touch pad with two button function	
Dimensions ³	<i>4-cell:</i> (WxDxH): 11.0" x 6.9" x 0.6-1.1"; 280mm x 174mm x 15-27.6mm <i>8-cell:</i> (WxDxH): 11.1" x 8.0" x 0.6-1.4"; 282mm x 202mm x 15-35.0mm	
Weight ²	<i>4-cell:</i> starting at 2.76 lb (1.25 kg) <i>8-cell:</i> starting at 3.31 lb (1.50 kg)	
Case color	<i>Top:</i> black color with different pattern <i>bottom:</i> black <i>Palm rest:</i> White	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion, 4-cell or Hybrid 8-cell	
Battery - life ¹⁰	<i>4-cell:</i> up to 4 hr; <i>8-cell:</i> up to 10 hr	
Chipset	Intel NM10 Express Chipset	
ExpressCard/34	None	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, Secure Digital Pro Card, xD-Picture Card™)	
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)	
TV tuner	None	
PCIe Mini Card	Two PCI Express Mini Card slots	
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card adapter, Broadcom® BCM4313	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless + EDR, LED indicator	
Modem	None	
Ethernet	Gigabit ethernet, Broadcom 57780	
Audio support	High Definition (HD) Audio, Conexant® CX20582 codec / stereo speakers (1.5 watt x 2) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm), Dolby® Headphone™ certificated	
Security	Power-on password, supervisor password, hard disk password, security keyhole	
Fingerprint reader	None	

See footnotes for important warranty information
US models announced January 18, 2010

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Type-model	Processor	GHz	Memory	Widescreen display	Multi-touch screen	Camera	Integrated graphics	SATA disk	PCIe Mini card 802.11	Top color	Blue-tooth	Battery	Win7 preload	Avail date
0651-37U	Atom N450	1.66	1GB	10.1" WSVGA	Multi	1.3M	GMA 3150	250GB ⁸	11b/g/n ²⁸	Cosmic Night	None	8-cell	Starter	Jan 10

- **Tablet netbook features a multi-touch panel and a durable steel hinge supporting ± 180 degree rotation**
- **10.1" widescreen, glossy display with LED backlight**
- **Super-slim (starts at 0.6 inch thin)**
- **Integrated camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**
- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype™ without booting into Windows**

Positioning Processor	Tablet netbook; consumer markets Intel® Atom™ Processor N450 with single-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 667MHz), integrated graphic controller, Hyper-Threading technology, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Starter Edition Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Lenovo ReadyComm• Lenovo Energy Management Software• Lenovo DirectShare• VeriFace• Quick Start• Lenovo VeriTouch• Lenovo Natural Touch• BumpTop™• Microsoft® Office 2007 Trial (60-day)
Memory	1GB std / 2GB max / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; <i>Non-italics:</i> standard memory 1GB in socket; no socket available		
Optical drive	None		
SATA disk	250GB (5400 rpm)/ SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable, Active Protection System™		
Widescreen display	10.1" (256.5mm) WSVGA (1024x600) TFT color, VibrantView (glossy); LED backlight , 180 nits, 16:9 aspect ratio, 400:1 contrast ratio, rotatable dual swivel hinge for tablet mode, support display auto roation		
Touch screen type	MultiTouch (touchscreen supports two-finger touch)		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor External monitor support via analog VGA DB-15 connector		
Keyboard	Full size keyboard, Fn keys		
Touch pad	One-piece touch pad with two button function		
Dimensions ³	<i>4-cell:</i> (WxDxH): 11.0" x 6.9" x 0.6-1.1"; 280mm x 174mm x 15-27.6mm <i>8-cell:</i> (WxDxH): 11.1" x 8.0" x 0.6-1.4"; 282mm x 202mm x 15-35.0mm		
Weight ²	<i>4-cell:</i> starting at 2.76 lb (1.25 kg) <i>8-cell:</i> starting at 3.31 lb (1.50 kg)		
Case color	<i>Top:</i> black color with different pattern <i>bottom:</i> black <i>Palm rest:</i> White		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 4-cell or Hybrid 8-cell		
Battery - life ¹⁰	<i>4-cell:</i> up to 4 hr; <i>8-cell:</i> up to 10 hr		
Chipset	Intel NM10 Express Chipset		
ExpressCard/34	None		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, Secure Digital Pro Card, xD-Picture Card™)		
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card adapter, Broadcom® BCM4313		
Bluetooth™	None		
Modem	None		
Ethernet	Gigabit ethernet, Broadcom 57780		
Audio support	High Definition (HD) Audio, Conexant® CX20582 codec / stereo speakers (1.5 watt x 2) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm), Dolby® Headphone™ certificated		
Security	Power-on password, supervisor password, hard disk password, security keyhole		
Fingerprint reader	None		

Limited Warranty ¹² ⇒ 1-year warranty* : * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇒ Mail In repair service ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 2-year Mail-In warranty 78Y1544• 3-year Mail-In warranty 78Y1547• 1-year accidental damage protection via Mail-In 78Y1543• 2-year accidental damage protection via Mail-In 78Y1545• 3-year accidental damage protection via Mail-In 78Y1548 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686

See footnotes for important warranty information
 US model announced January 18, 2010

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Lenovo IdeaPad S12 (VIA or Intel platform)
Black with 3-cell battery



Lenovo IdeaPad S12
Black with 3-cell battery



Lenovo IdeaPad S12 (VIA or Intel platform)
Black with 3-cell battery



Lenovo IdeaPad S12 (VIA or Intel platform)
White and Black with 3-cell battery



Lenovo IdeaPad S12 (VIA or Intel platform)
White with 6-cell battery



Lenovo IdeaPad S12 (NVIDIA ION platform*)
White with 6-cell battery
* ION models have HDMI port instead of ExpressCard/34

Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
2959-55U	Atom N270	1.60	1GB	12.1" WXGA	1.3M	GMA	160GB ⁸	11b/g ¹¹	White	None	6-cell	XP Home	Jun 09
2959-33U	Atom N270	1.60	1GB	12.1" WXGA	1.3M	GMA	160GB	11b/g	White	None	6-cell	XP Home	Sep 09
2959-54U	Atom N270	1.60	1GB	12.1" WXGA	1.3M	GMA	160GB	11b/g	Black	None	6-cell	XP Home	Jun 09
2959-32U	Atom N270	1.60	1GB	12.1" WXGA	1.3M	GMA	160GB	11b/g	Black	None	6-cell	XP Home	Sep 09

- **A 12" netbook provides full size keyboard with standard touchpad for good user experience**
- **12.1" widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face.**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**
- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype® without booting Windows**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache	Preloaded operating system²⁰ - Genuine Windows® XP Home Edition Preloaded applications¹⁴ • Lenovo® OneKey Recovery • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Lenovo Energy Management Software • VeriFace™ • Lenovo Quick Start
Memory	1GB std / 2GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket <i>Non-italics:</i> standard memory 1GB soldered to systemboard; one socket available	
Diskette drive	None	
External combo SATA disk	None 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable	
Widescreen display	12.1" (307mm) WXGA (1280x800) TFT color, VibrantView (glossy), LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE	
Keyboard	Full size keyboard, Fn keys, recovery key, Quick Start button	40-watt AC adapter wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³	<i>3-cell:</i> (WxDxH): 11.5" x 8.5" x 0.9-1.1"; 292mm x 216mm x 22-28.9mm <i>6-cell:</i> (WxDxH): 11.5" x 9.1" x 0.9-1.4"; 292mm x 230mm x 22-36mm	
Weight ²	<i>3-cell:</i> starting at 3.09 lb (1.4 kg) <i>6-cell:</i> starting at 3.42 lb (1.55 kg)	Limited Warranty¹² ⇨ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇨ Mail In repair service ⇨ Service upgrade options (in eligible locations):⁹ • 2-year Mail-In warranty 78Y1544 • 3-year Mail-In warranty 78Y1547 • 1-year accidental damage protection via Mail-In 78Y1543 • 2-year accidental damage protection via Mail-In 78Y1545 • 3-year accidental damage protection via Mail-In 78Y1548 ⇨ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Case color	<i>Top:</i> black or white, with fashion pattern <i>Palm rest:</i> color matches top color <i>Bottom:</i> color matches top color	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion, 3-cell or 6-cell	
Battery - life ¹⁰	<i>3-cell:</i> up to 3.0 hr; <i>6-cell:</i> up to 6.0 hr	
Chipset	Mobile Intel 945GSE Express Chipset (Graphics Memory Controller Hub), ICH7M I/O Controller Hub (SATA 1.5Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)	
ExpressCard/34	One slot (ExpressCard/34)	
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)	
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)	
TV tuner	None	
Mini PCI Express	One Mini PCI Express slot	
11b/g ¹¹	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312	
Bluetooth™	None	
Modem	None	
Ethernet	10/100 ethernet, Broadcom® BCM5784M	
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm) with Dolby® Headphone™ certification	
Security	Power-on password, supervisor password, harddisk password, security keyhole	
Fingerprint reader	None	

See footnotes for important warranty information

US models announced September 10, 2009; previous models on June 24, 2009

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(MC1-1) September 2009

Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Win 7 preload	Avail date
2959-5AU	Atom N270	1.60	2GB	12.1" WXGA	1.3M	GMA	160GB	11b/g	White	None	6-cell	Prem 32	Oct 09
2959-5BU	Atom N270	1.60	2GB	12.1" WXGA	1.3M	GMA	160GB	11b/g	Black	None	6-cell	Prem 32	Oct 09

- **A 12" netbook provides full size keyboard with standard touchpad for good user experience**
- **12.1" widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face.**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**
- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype® without booting Windows**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• McAfee VirusScan® Plus 2009 (30 days of virus definitions)• Adobe® Reader®• Windows Live™ Toolbar• Lenovo Energy Management Software• VeriFace™• Lenovo Quick Start
Memory	2GB std / 2GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket <i>Italics:</i> standard memory 1GB soldered to systemboard; 1GB in socket; no sockets available;		
Diskette drive	None		
External combo	None		
SATA disk	160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable		
Widescreen display	12.1" (307mm) WXGA (1280x800) TFT color, VibrantView (glossy), LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE		
Keyboard	Full size keyboard, Fn keys, recovery key, Quick Start button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	<i>3-cell:</i> (WxDxH): 11.5" x 8.5" x 0.9-1.1"; 292mm x 216mm x 22-28.9mm <i>6-cell:</i> (WxDxH): 11.5" x 9.1" x 0.9-1.4"; 292mm x 230mm x 22-36mm		
Weight ²	<i>3-cell:</i> starting at 3.09 lb (1.4 kg) <i>6-cell:</i> starting at 3.42 lb (1.55 kg)		
Case color	<i>Top:</i> black or white, with fashion pattern <i>Palm rest:</i> color matches top color <i>Bottom:</i> color matches top color		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 3-cell or 6-cell		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.0 hr; <i>6-cell:</i> up to 6.0 hr		
Chipset	Mobile Intel 945GSE Express Chipset (Graphics Memory Controller Hub), ICH7M I/O Controller Hub (SATA 1.5Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
Mini PCI Express	One Mini PCI Express slot		
11b/g ¹¹	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312		
Bluetooth™	None		
Modem	None		
Ethernet	10/100 ethernet, Broadcom® BCM5784M		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm) with Dolby® Headphone™ certification		
Security	Power-on password, supervisor password, harddisk password, security keyhole		
Fingerprint reader	None		

Limited Warranty ¹²	
⇒	1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter
⇒	Mail in repair service
⇒	Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 2-year Mail-In warranty 78Y1544• 3-year Mail-In warranty 78Y1547• 1-year accidental damage protection via Mail-In 78Y1543• 2-year accidental damage protection via Mail-In 78Y1545• 3-year accidental damage protection via Mail-In 78Y1548
⇒	24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686

See footnotes for important warranty information
US models announced October 23, 2009

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Limited Warranty¹²

⇒ **1-year warranty*:**
* **1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter**

⇒ **Mail In repair service**

⇒ **Service upgrade options (in eligible locations):⁹**

- **2-year Mail-In warranty** 78Y1544
- **3-year Mail-In warranty** 78Y1547
- **1-year accidental damage protection via Mail-In** 78Y1543
- **2-year accidental damage protection via Mail-In** 78Y1545
- **3-year accidental damage protection via Mail-In** 78Y1548

⇒ **24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686**

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
2959-56U	U2250	1.30+	1GB	12.1" WXGA	1.3M	VIA Chrome9 HC3	160GB ⁸	11b/g ¹¹	Black	None	6-cell	XP Home	Aug 09

- **A 12" netbook provides full size keyboard with standard touchpad for good user experience**
- **12.1" widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face.**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**
- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype® without booting Windows**

Positioning Processor	Netbook; consumer markets VIA Nano™ Processor U2250 with single-core, 800MHz system bus, and 1MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® XP Home Edition
Memory	1GB std / 2GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket <i>Non-italics</i> : standard memory 1GB soldered to systemboard; one socket available		
Diskette drive	None		
External combo SATA disk	None 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable		
Widescreen display	12.1" (307mm) WXGA (1280x800) TFT color, VibrantView (glossy), LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio		Preloaded applications ¹⁴ • Lenovo® OneKey Recovery • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Lenovo Energy Management Software • VeriFace™ • Lenovo Quick Start
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Graphics	VIA Chrome9™ HC3 integrated graphics , in VX800		
Keyboard	Full size keyboard, Fn keys, recovery key, Quick Start button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		Available at these retailers • lenovo.com
Dimensions ³	<i>3-cell:</i> (WxDxH): 11.5" x 8.5" x 0.9-1.1"; 292mm x 216mm x 22-28.9mm <i>6-cell:</i> (WxDxH): 11.5" x 9.1" x 0.9-1.4"; 292mm x 230mm x 22-36mm		40-watt AC adapter wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Weight ²	<i>3-cell:</i> starting at 3.09 lb (1.4 kg) <i>6-cell:</i> starting at 3.42 lb (1.55 kg)		
Case color	<i>Top:</i> black or white, with fashion pattern <i>Palm rest:</i> color matches top color <i>Bottom:</i> color matches top color		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 3-cell or 6-cell		Limited Warranty ¹² ⇒ 1-year warranty* : * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇒ Mail In repair service ⇒ Service upgrade options (in eligible locations): ⁹ • 2-year Mail-In warranty 78Y1544 • 3-year Mail-In warranty 78Y1547 • 1-year accidental damage protection via Mail-In 78Y1543 • 2-year accidental damage protection via Mail-In 78Y1545 • 3-year accidental damage protection via Mail-In 78Y1548 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Battery - life ¹⁰	<i>3-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 4.6 hr		
Chipset	VIA VX800 Unified Chipset (integrates all the cutting-edge features of a modern chipset's North and South bridges into a single chip package)		
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
Mini PCI Express	One Mini PCI Express slot		
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312		
Bluetooth™	None		
Modem	None		
Ethernet	10/100 ethernet, Broadcom® BCM5906M		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm) with Dolby® Headphone™ certification		
Security	Power-on password, supervisor password, harddisk password, security keyhole		
Fingerprint reader	None		

See footnotes for important warranty information
US model announced August 5, 2009

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Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Color	Bluetooth	Battery	Win 7 preload	Avail date
2959-5FU	Atom N270	1.60	2GB	12.1" WXGA	1.3M	NVIDIA ION	250GB ⁸	11b/g ¹¹	Black	Bluetooth	6-cell	Prem 32	Oct 09
2959-5GU	Atom N270	1.60	3GB	12.1" WXGA	1.3M	NVIDIA ION	320GB	11b/g	Black	Bluetooth	6-cell	Prem 32	Oct 09
2959-5DU	Atom N270	1.60	2GB	12.1" WXGA	1.3M	NVIDIA ION	250GB	11b/g	Black	Bluetooth	6-cell	Prem 32	Oct 09
2959-5EU	Atom N270	1.60	2GB	12.1" WXGA	1.3M	NVIDIA ION	250GB	11b/g	White	Bluetooth	6-cell	Prem 32	Oct 09

- **A 12" netbook provides full size keyboard with standard touchpad for good user experience**
- **12.1" widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face.**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**
- **Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype® without booting Windows**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• McAfee VirusScan® Plus 2009 (30 days of virus definitions)• Adobe® Reader®• Windows Live™ Toolbar• Lenovo Energy Management Software• VeriFace™• Lenovo Quick Start
Memory	2GB or 3GB std / 3GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket <i>Italics:</i> standard memory 1GB soldered to systemboard; 1GB or 2GB in socket; no sockets available;		
Diskette drive	None		
External combo SATA disk	None 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable		
Widescreen display	12.1" (307mm) WXGA (1280x800) TFT color, VibrantView (glossy), LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Graphics	NVIDIA® ION™ graphics processor , in MCP79, DirectX 10, PureVideo® HD technology, Full HD decode (1080i/p), uses main memory, one VGA DB-15 connector, one HDMI connector, HDCP-compliant		
Keyboard	Full size keyboard, Fn keys, recovery key, Quick Start button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	<i>3-cell:</i> (WxDxH): 11.5" x 8.5" x 0.9-1.1"; 292mm x 216mm x 22-28.9mm <i>6-cell:</i> (WxDxH): 11.5" x 9.1" x 0.9-1.4"; 292mm x 230mm x 22-36mm		40-watt AC adapter wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Weight ²	<i>3-cell:</i> starting at 3.09 lb (1.4 kg) <i>6-cell:</i> starting at 3.42 lb (1.55 kg)		
Case color	<i>Top:</i> black or white, with fashion pattern <i>Palm rest:</i> color matches top color <i>Bottom:</i> color matches top color		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 3-cell or 6-cell		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.0 hr; <i>6-cell:</i> up to 6.0 hr		
Chipset	NVIDIA ION chipset (MCP79) , integrates all features of a modern chipset's North and South bridges into a single chip package		Limited Warranty ¹² ⇒ 1-year warranty* : * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇒ Mail In repair service ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 2-year Mail-In warranty 78Y1544• 3-year Mail-In warranty 78Y1547• 1-year accidental damage protection via Mail-In 78Y1543• 2-year accidental damage protection via Mail-In 78Y1545• 3-year accidental damage protection via Mail-In 78Y1548 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
ExpressCard/34	None		
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
TV tuner	None		
Mini PCI Express	One Mini PCI Express slot		
11b/g ¹¹	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Modem	None		
Ethernet	10/100 ethernet, Broadcom® BCM5784M		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt) / microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm) with Dolby® Headphone™ certification		
Security	Power-on password, supervisor password, harddisk password, security keyhole		
Fingerprint reader	None		

See footnotes for important warranty information
US models announced October 22, 2009

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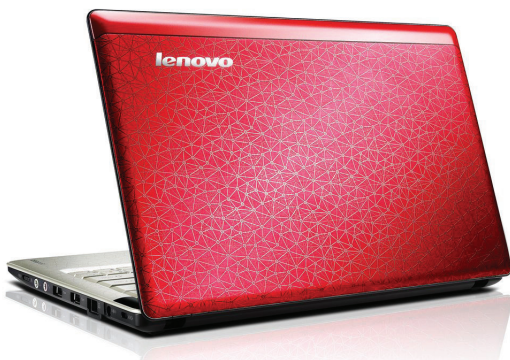
ideapad



Lenovo IdeaPad U150



Lenovo IdeaPad U150



Lenovo IdeaPad U150
red cover



Lenovo IdeaPad U150



Lenovo IdeaPad U150



Lenovo IdeaPad U150
black cover

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Battery	Win7 preload	Avail date
6909-68U	SU4100	1.30	3GB	11.6" HD	1.3M	GMA 4500MHD	250GB ⁸	11b/g ¹¹	Red	Blue	6-cell	Prem 64	Nov 09
6909-69U	SU7300	1.30	4GB	11.6" HD	1.3M	GMA 4500MHD	320GB	Intel 5100 ²⁸	Black	Blue	6-cell	Prem 64	Nov 09
6909-56U	SU2300	1.20	2GB	11.6" HD	1.3M	GMA 4500MHD	160GB	11b/g	Black		6-cell	Prem 32	Apr 10

- **Super-slim (starts at 0.5 inches thin), ultra-light (weighs just over 3.52 pounds)**
- **11.6" HD widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Home Sound Room™ premium audio system with two stereo speakers**
- **HDMI port, HDCP-compliant**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	Widescreen flexibility; one-spindle Intel® Celeron® processor SU2300 with ultra low voltage, dual-core , 800MHz system bus, and 1MB L2 cache or Intel Pentium® processor SU4100 with ultra low voltage, dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo processor SU7300 with ultra low voltage, dual-core , 800MHz system bus, and 3MB L2 cache									Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 32 - Some: Genuine Windows 7 Home Premium 64 Preloaded applications¹⁴ (only some listed) • Lenovo™ OneKey Recovery • Lenovo ReadyComm • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live™ Toolbar • Easy Capture • VeriFace™ • Lenovo Energy Management Software			
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available												
Diskette drive	None												
Optical drive	None												
SATA disk	160GB (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, Active Protection System™												
Widescreen display	11.6" (294.6mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy), LED backlight , 200 nits, 16:9 aspect ratio, 500:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, External monitor support via analog VGA DB-15 connector / digital HDMI connector												
Keyboard	Full-size keyboard, 6-row, Fn keys, recovery button												
Light sensor	None												
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch												
Dimensions ³	6-cell: (WxDxH): 11.4" x 7.5" x 0.5-1.35"; 290mm x 191.5mm x 13.5-34.3mm												
Weight ²	6-cell: starting at 3.31 lb (1.5kg)												
Case color	Black or red top with texture; black bottom												
Case material	Top: Aluminum Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic												
Battery - type	Lithium Ion, 6-cell												
Battery - life ¹⁰	6-cell: up to 7 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), 82801IUX-SFF I/O Controller Hub (ICH9M-SFF)												
ExpressCard/34	None												
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)												
Ports	Two USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)												
TV tuner	None												
Mini PCI Express	Two Mini PCI Express slots												
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
11b/g ¹¹	Some: 11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312												
Bluetooth™	Some: Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator												
Modem	None												
Ethernet	Gigabit ethernet, Broadcom 57780												
Audio support	High Definition (HD) Audio, Conexant® CX20582 codec / two stereo speakers (1.5 watt), Dolby Home Sound Room audio system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Fingerprint reader	None												

See footnotes for important warranty information

US model announced April 7, 2010; previous models on November 3, 2009

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(CH1-1) April 2010



Lenovo IdeaPad U330



Lenovo IdeaPad U330



Lenovo IdeaPad U330



Lenovo IdeaPad U330



Lenovo IdeaPad U330



Lenovo IdeaPad U330

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Battery	Vista preload	Avail date
2267-65U	T4200	2.00	2GB	13.3" WXGA	Cam	GMA 4500MHD	250GB ⁸	DVD±RW	11b/g ¹¹	Black	6-cell	Prem 32	Oct 09
2267-58U	T4200	2.00	3GB	13.3" WXGA	Cam	GMA 4500MHD	320GB	DVD±RW	11b/g	Black	6-cell	XP Pro	Oct 09
2267-64U	T4200	2.00	3GB	13.3" WXGA	Cam	GMA 4500MHD	320GB	DVD±RW	11b/g	Black	6-cell	Prem 32	Oct 09

- *The "U" series is about expressing ideas with style*
- *Super-slim (starts at 0.9 inches thin), ultra-light (weighs just over 4 pounds)*
- *13.3" widescreen, glossy display with LED backlight*
- *Integrated 1.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face*
- *Dolby® Home Theater® premium audio system with two stereo speakers*
- *Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows*

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® processor T4200 with dual-core, 800MHz system bus, and 1MB L2 cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business) - <i>Some:</i> Genuine Windows Vista Home Premium 32 ✧ <i>Vista models:</i> Vista Premium logo Preloaded applications ¹⁴ (only some listed) • Lenovo® OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-Italics:</i> standard memory in one socket; one socket available		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5mm high, tray-in 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable Active Protection System™		
Widescreen display Camera	13.3" (337.8mm) WXGA (1280x800) TFT color, VibrantView (glossy), LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus		
Graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45		
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys		 90-watt AC adapter Wireless on/off switch RoHS-compliant Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇨ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Multimedia controls	Touch-sensitive audio-video control panel, Shuttle Key		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	(WxDxH): 12.5" x 9.3" x 0.9-1.1"; 318mm x 237mm x 23-28mm		
Weight ²	6-cell: starting at 4.32 lb (1.96kg)		
Case color	Black top, black bottom		
Case material	Top: magnesium-aluminum alloy; Bottom: magnesium-aluminum alloy		
Battery - type	Lithium Ion, 6-cell 5200 mAh		
Battery - life ¹⁰	Up to 5.5 hr (integrated graphics)		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
TV tuner	None		
Mini PCI Express	One Mini PCI Express slot		
11b/g ¹¹	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312		
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH9M, LED indicator		
Modem	None		
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt), Dolby Home Theater speaker system / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Fingerprint reader	None		

See footnotes for important warranty information
US models announced September 30, 2009

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Type-model	Pro cessor	GHz	Memory	Widescreen display	Cam- era	Switchable graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Battery	Vista preload	Avail date
✕ 2267-2DU	T6400	2.00	2GB	13.3" WXGA	Cam	GMA, HD 3450	250GB ⁸	DVD±RW	* Intel 5100 ²⁸	Black	6-cell	Prem 32	Apr 09
✕ 2267-2EU	T6400	2.00	2GB	13.3" WXGA	Cam	GMA, HD 3450	320GB	DVD±RW	* Intel 5100	Black	6-cell	Prem 32	Apr 09
2267-2BU	P7350	2.00	2GB	13.3" WXGA	Cam	GMA, HD 3450	250GB	DVD±RW	✧ Intel 5100	Glossy black	6-cell	Prem 32	Aug 08
2267-3AU	P7350	2.00	3GB	13.3" WXGA	Cam	GMA, HD 3450	250GB	DVD±RW	✧ Intel 5100	Glossy black	6-cell	Prem 32	Sep 08
2267-2AU	P7350	2.00	3GB	13.3" WXGA	Cam	GMA, HD 3450	320GB	DVD±RW	✧ Intel 5100	Glossy black	6-cell	Prem 32	Aug 08
2267-2FU	P7450	2.13	3GB	13.3" WXGA	Cam	GMA, HD 3450	320GB	DVD±RW	✧ Intel 5100	Black	6-cell	Prem 32	May 09
2267-2CU	P8600	2.40	4GB	13.3" WXGA	Cam	GMA, HD 3450	320GB	DVD±RW	✧ Intel 5100	Black	6-cell	Prem 64	Apr 09
2267-2GU	P7450	2.13	2GB	13.3" WXGA	Cam	GMA, HD 3450	250GB	DVD±RW	✧ Intel 5100	Black	6-cell	Prem 32	Oct 09
2267-2FU	P7450	2.13	3GB	13.3" WXGA	Cam	GMA, HD 3450	320GB	DVD±RW	✧ Intel 5100	Black	6-cell	Prem 32	Oct 09

- The "U" series is about expressing ideas with style
- Super-slim (starts at 0.9 inches thin), ultra-light (weighs just over 4 pounds)
- 13.3" widescreen, glossy display with LED backlight
- Dynamic switching between discrete and integrated graphics (user selectable)
- Integrated 1.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face
- Dolby® Home Theater® premium audio system with two stereo speakers
- HDMI port, HDCP-compliant
- Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor T6400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7350, P7450, or P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows® Vista® Home Premium 32 - Some: Genuine Windows Vista Home Premium 64 ✧ Vista Premium logo
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications ¹⁴ (only some listed) • Lenovo® OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5mm high, tray-in 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable Active Protection System™	
Widescreen display Camera	13.3" (337.8mm) WXGA (1280x800) TFT color, VibrantView (glossy), LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, frameless screen Camera on top of screen, 1.3-megapixel, fixed focus	
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3450 , PCI Express® x16, 256MB memory, DirectX® 10, ATI Avivo™ HD, VGA connector, HDMI connector, HDCP-compliant	
Keyboard Multimedia controls Touch pad	Full-size keyboard, 6-row, 84-key, multimedia Fn keys Touch-sensitive audio-video control panel, Shuttle Key Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(<i>WxDxH</i>): 12.5" x 9.3" x 0.9-1.1"; 318mm x 237mm x 23-28mm <i>6-cell</i> : starting at 4.32 lb (1.96kg) Black or high glossy black top, black bottom <i>Top</i> : magnesium-aluminum alloy; <i>Bottom</i> : magnesium-aluminum alloy Lithium Ion, 6-cell 5200 mAh Up to 3.5 hr (discrete graphics); up to 5.5 hr (integrated graphics)	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)	90-watt AC adapter Wireless on/off switch RoHS-compliant
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇒ 24x7 toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Ports	Two USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None One Mini PCI Express slot 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Bluetooth 2.0 wireless, USB 2.0 interface via ICH9M, LED indicator None 10/100 ethernet, Broadcom® BCM5906M, PCI 2.3 High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt), Dolby Home Theater speaker system / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm) Power-on password, hard disk password, supervisor password, security keyhole	
Security Fingerprint reader	None	

See footnotes for important warranty information

* Intel Centrino® processor technology

✕ US models announced September 30, 2009;

✧ Intel Centrino 2 processor technology

previous models on August 19 or September 9, 2008 or April 22 or May 27, 2009

✕ US models withdrawn effective October 2009

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(OLP1-1) October 2009



Lenovo IdeaPad U350



Lenovo IdeaPad U350



Lenovo IdeaPad U350 with
with Lizard Skin pattern cover



Lenovo IdeaPad U350 cover



Lenovo IdeaPad U350



Lenovo IdeaPad U350
Lightweave pattern cover

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Chipset	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Battery	Vista preload	Avail date
2963-25U	SU2700	1.30	2GB	13.3" WXGA	Cam	GMA 4500M	250GB ⁸	GS40	Intel 5100 ²⁸	Black	Blue	4-cell	Prem 32	Jun 09
2963-26U	SU2700	1.30	3GB	13.3" WXGA	Cam	GMA 4500M	250GB	GS40	Intel 5100	Black	Blue	4-cell	Prem 32	Jun 09
2963-27U	SU2700	1.30	3GB	13.3" WXGA	Cam	GMA 4500M	320GB	GS40	Intel 5100	Black	Blue	4-cell	Prem 32	Jun 09
2963-23U	SU2700	1.30	4GB	13.3" WXGA	Cam	GMA 4500M	320GB	GS40	Intel 5100	Black	Blue	4-cell	Prem 32	Jun 09
2963-2HU	SU2700	1.30	3GB	13.3" WXGA	Cam	GMA 4500M	250GB	GS40	Intel 5100	Black		4-cell	Prem 32	Aug 09
2963-2CU	SU2700	1.30	3GB	13.3" WXGA	Cam	GMA 4500M	250GB	GS40	Intel 5100	Black		4-cell	Prem 32	Aug 09
2963-2JU	SU3500	1.40	4GB	13.3" WXGA	Cam	GMA 4500MHD	320GB	GS45	Intel 5100	Black	Blue	4-cell	Prem 64	Oct 09

- **Super-slim (starts at 0.7 inches thin), ultra-light (weighs just over 3.52 pounds)**
- **13.3" HD widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Home Sound Room™ premium audio system with two stereo speakers**
- **HDMI port, HDCP-compliant**
- **Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	Widescreen flexibility; one-spindle Intel® Pentium® processor SU2700 with ultra low voltage, single-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Solo processor SU3500 with ultra low voltage, single-core, 800MHz system bus, and 3MB L2 cache		Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® Vista® Home Premium 32 - <i>Some:</i> Genuine Windows Vista Home Premium 64 ✧ Vista Premium logo	
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		Preloaded applications¹⁴ (only some listed) • Lenovo™ OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • VeriFace™ • Lenovo Energy Management Software	
Diskette drive	None		65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant	
Optical drive	None			
SATA disk	250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable Active Protection System™			
Widescreen display	13.3" (337.8mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 200 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus			
Integrated graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500M (GMA 4500M) , in GS40, <i>Some:</i> Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, External monitor support via analog VGA DB-15 connector / digital HDMI connector; Maximum external resolution: 2048x1536 @ 75Hz (VGA)			
Keyboard	Full-size keyboard, 6-row, Fn keys, recovery button			
Light sensor	Ambient light sensor			
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch			
Dimensions ³	(WxDxH): 12.9" x 9.0" x 0.7-1.0"; 328mm x 228mm x 17-24.9mm			
Weight ²	4-cell: starting at 3.52 lb (1.6kg)			
Case color	Black top with square weave texture, black bottom			
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic			
Battery - type	Lithium Polymer, 4-cell			
Battery - life ¹⁰	4-cell: up to 5 hr			
Chipset	Mobile Intel GS40/GS45 Express Chipset (Graphics Memory Controller Hub), 82801IUX-SFF I/O Controller Hub (ICH9M-SFF) (SATA 3Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)			
ExpressCard/34	None			
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)			
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45),			
TV tuner	None			
Mini PCI Express	Two Mini PCI Express slots			
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)			
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator			
Modem	None			
Ethernet	Gigabit ethernet, Broadcom® 57780			
Audio support	High Definition (HD) Audio, Conexant CX 20582 codec / two stereo speakers (1.5 watt), Dolby Home Sound Room audio system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Fingerprint reader	None			

See footnotes for important warranty information

US model announced September 30, 2009; previous models on June 24 or August 19, 2009

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Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Battery	Win7 preload	Avail date
2963-47U	SU4100	1.30	3GB	13.3" WXGA	1.3M	GMA 4500MHD	320GB ⁸	11b/g ¹¹	Black		4-cell	Prem 32	Oct 09
2963-46U	SU7300	1.30	4GB	13.3" WXGA	1.3M	GMA 4500MHD	320GB	Intel 5100 ²⁸	Black		4-cell	Prem 64	Oct 09
2963-2YU	SU4100	1.30	3GB	13.3" WXGA	1.3M	GMA 4500MHD	320GB	Intel 5100	Black	Blue	8-cell	Prem 64	Oct 09
2963-2UU	SU7300	1.30	4GB	13.3" WXGA	1.3M	GMA 4500MHD	320GB	Intel 5100	Black	Blue	8-cell	Prem 64	Oct 09
2963-2VU	SU7300	1.30	4GB	13.3" WXGA	1.3M	GMA 4500MHD	320GB	Intel 5100	Lightweave	Blue	8-cell	Prem 64	Oct 09
2963-2XU	SU7300	1.30	4GB	13.3" WXGA	1.3M	GMA 4500MHD	320GB	Intel 5100	Lizard Skin	Blue	8-cell	Prem 64	Oct 09
2963-4GU	SU4100	1.30	3GB	13.3" WXGA	1.3M	GMA 4500MHD	250GB	11b/g	Black		8-cell	Prem 32	Apr 10

- **Super-slim (starts at 0.7 inches thin), ultra-light (weighs just over 3.52 pounds)**
- **13.3" HD widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Home Sound Room™ premium audio system with two stereo speakers**
- **HDMI port, HDCP-compliant**
- **Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**



Lizard Skin



LightWeave

Positioning Processor	Widescreen flexibility; one-spindle Intel® Pentium® processor SU4100 with ultra low voltage, dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo processor SU7300 with ultra low voltage, dual-core , 800MHz system bus, and 3MB L2 cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 32 - Some: Genuine Windows 7 Home Premium 64
Memory	3GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available	Preloaded applications¹⁴ (only some listed) • Lenovo™ OneKey Recovery • Lenovo ReadyComm • McAfee VirusScan® Plus 2009 (30 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • VeriFace™ • Lenovo Energy Management Software
Diskette drive	None	65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Optical drive	None	
SATA disk	250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable Active Protection System™	
Widescreen display	13.3" (337.8mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 200 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	Limited Warranty¹² ⇒ 1-year parts and labor ⇒ Depot repair service¹⁹ ⇒ Service upgrade options (in eligible locations):⁹ • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, External monitor support via analog VGA DB-15 connector / digital HDMI connector; Maximum external resolution: 2048x1536@75Hz (VGA)	
Keyboard	Full-size keyboard, 6-row, Fn keys, recovery button	
Light sensor	Ambient light sensor	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³	(WxDxH): 12.9" x 9.0" x 0.7-1.0"; 328mm x 228mm x 17-24.9mm	
Weight ²	4-cell: starting at 3.52 lb (1.6kg); 8-cell: starting at 4 lb (1.8kg)	
Case color	Black top with square weave, lightweave, or lizard skin texture; black bottom	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Polymer, 4-cell or 8-cell	
Battery - life ¹⁰	4-cell: up to 5 hr; 8-cell: up to 10 hr	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), 82801IUX-SFF I/O Controller Hub (ICH9M-SFF) (SATA 3Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)	
ExpressCard/34	None	
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)	
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
TV tuner	None	
Mini PCI Express	Two Mini PCI Express slots	
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
11b/g ¹¹	Some: 11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312	
Bluetooth™	Some: Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator	
Modem	None	
Ethernet	Gigabit ethernet, Broadcom 57780	
Audio support	High Definition (HD) Audio, Conexant CX 20582 codec / two stereo speakers (1.5 watt), Dolby Home Sound Room audio system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Fingerprint reader	None	

See footnotes for important warranty information

US model announced April 7, 2010; previous models on October 23, 2009

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ideapad



Lenovo IdeaPad U450p



Lenovo IdeaPad U450p



Lenovo IdeaPad U450p



Lenovo IdeaPad U450p



Lenovo IdeaPad U450p



Lenovo IdeaPad U450p

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Battery	Vista preload	Avail date
3389-26U	SU2700	1.30	3GB	14.0" WXGA	Cam	GMA 4500MHD	250GB ⁸	DVD±RW	11b/g ²⁸	Black	None	6-cell	Prem 32	Aug 09
3389-28U	SU3500	1.40	4GB	14.0" WXGA	Cam	GMA 4500MHD	320GB	DVD±RW	Intel 5100	Black	None	6-cell	Prem 64	Aug 09
3389-29U	SU3500	1.40	4GB	14.0" WXGA	Cam	GMA 4500MHD	500GB	DVD±RW	Intel 5100	Black	None	6-cell	Prem 64	Aug 09

- **14.0" HD widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Home Sound Room™ premium audio system with two stereo speakers**
- **HDMI port, HDCP-compliant**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	<i>Widescreen flexibility; two-spindle</i> Intel® Pentium® processor SU2700 with ultra low voltage, single-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Solo processor SU3500 with ultra low voltage, single-core, 800MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® Vista® Home Premium 32- <i>Some:</i> Genuine Windows Vista Home Premium 64 ✧ Vista Premium logo Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo™ OneKey Recovery• Lenovo ReadyComm• Norton Internet Security™ (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)
Memory	3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;	
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in 250GB (5400 rpm), 320GB (5400 rpm), or 500GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, not removable	
Widescreen display Camera	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, External monitor support via analog VGA DB-15 connector / digital HDMI connector; Maximum external resolution: 2048x1536 @ 75Hz (VGA)	
Keyboard Light sensor Touch pad	Full-size keyboard, 6-row, Fn keys, recovery button None Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	Available at these retailers <ul style="list-style-type: none">• lenovo.com 65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>(WxDxH):</i> 13.3" x 9.3" x 0.9-1.1"; 338.5mm x 235.5mm x 23~28.9mm <i>6-cell:</i> starting at 4.62 lb (2.1kg) Black top with square weave texture, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell <i>6-cell:</i> up to 6 hr	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), 82801IUX-SFF I/O Controller Hub (ICH9M-SFF) (SATA 3Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)	
ExpressCard/34 Multicard reader	None 4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)	
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
TV tuner	None	Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 1-year Onsite with accidental damage protection 78Y1533• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 78Y1540• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇨ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Mini PCI Express	Two Mini PCI Express slots <i>Some:</i> 11b/g wireless ⁴ , Mini PCI Express Adapter, Broadcom® BCM4312 <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
Bluetooth™	None	
Modem	None	
Ethernet	Gigabit ethernet, RealTek® 8111L	
Audio support	High Definition (HD) Audio, RealTek ALC272 codec / two stereo speakers (1.5 watt), Dolby® Home Sound Room™ audio system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Fingerprint reader	None	

See footnotes for important warranty information
 US models announced August 11, 2009

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Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Battery	Win7 preload	Avail date
3389-2BU	SU4100	1.30	3GB	14.0" WXGA	1.3M	GMA 4500MHD	250GB ⁸	DVD±RW	11b/g ¹¹	Black		6-cell	Prem 32	Oct 09
3389-32U	SU4100	1.30	3GB	14.0" WXGA	1.3M	GMA 4500MHD	250GB	DVD±RW	Intel 5100	Black	Blue	6-cell	Prem 64	Oct 09
3389-33U	SU4100	1.30	4GB	14.0" WXGA	1.3M	GMA 4500MHD	320GB	DVD±RW	Intel 5100	Black	Blue	6-cell	Prem 64	Oct 09
3389-2EU	SU7300	1.30	4GB	14.0" WXGA	1.3M	GMA 4500MHD	320GB	DVD±RW	Intel 5100 ²⁸	Black		6-cell	Prem 64	Oct 09

- **14.0" HD widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Home Sound Room™ premium audio system with two stereo speakers**
- **HDMI port, HDCP-compliant**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	<i>Widescreen flexibility; two-spindle</i> Intel® Pentium® processor SU4100 with ultra low voltage, dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo processor SU7300 with ultra low voltage, dual-core , 800MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® 7 Home Premium 32- <i>Some:</i> Genuine Windows 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo™ OneKey Recovery• Lenovo ReadyComm• McAfee VirusScan® Plus 2009 (30 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)
Memory	3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;	
Diskette drive	None	
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in	
SATA disk	250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, not removable	
Widescreen display	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, External monitor support via analog VGA DB-15 connector / digital HDMI connector; Maximum external resolution: 2048x1536@75Hz (VGA)	
Keyboard	Full-size keyboard, 6-row, Fn keys, recovery button	
Light sensor	None	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³	(WxDxH): 13.3" x 9.3" x 0.9-1.1"; 338.5mm x 235.5mm x 23~28.9mm	
Weight ²	6-cell: starting at 4.62 lb (2.1kg)	
Case color	Black top with square weave texture, black bottom	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion 6-cell	Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 1-year Onsite with accidental damage protection 78Y1533• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 78Y1540• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇨ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Battery - life ¹⁰	6-cell: up to 6 hr	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), 82801IUX-SFF I/O Controller Hub (ICH9M-SFF) (SATA 3Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)	
ExpressCard/34	None	
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)	
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
TV tuner	None	
Mini PCI Express	Two Mini PCI Express slots	
11b/g ¹¹	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI Express Adapter, Broadcom® BCM4312	
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator	
Modem	None	
Ethernet	Gigabit ethernet, RealTek® 8111L	
Audio support	High Definition (HD) Audio, RealTek ALC272 codec / two stereo speakers (1.5 watt), Dolby® Home Sound Room™ audio system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Fingerprint reader	None	

See footnotes for important warranty information
 US models announced October 23, 2009

⇨ Intel Centrino® 2 processor technology

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Type-model	Processor	GHz	Memory	Widescreen display	Camera	Discrete graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Battery	Win7 preload	Avail date
3389-2GU	SU7300	1.30	4GB	14.0" WXGA	1.3M	ATI HD4330	320GB ⁸	DVD±RW	Intel 5100 ²⁸	Black	Blue	6-cell	Prem 64	Oct 09
3389-2HU	SU9400	1.40	6GB	14.0" WXGA	1.3M	ATI HD4330	500GB	DVD±RW	Intel 5100	Black	Blue	6-cell	Prem 64	Oct 09

- 14.0" HD widescreen, glossy display with LED backlight
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face
- Dolby® Home Sound Room™ premium audio system with two stereo speakers
- HDMI port, HDCP-compliant
- Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor SU7300 or SU9400 with ultra low voltage, dual-core , 800MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo™ OneKey Recovery • Lenovo ReadyComm • McAfee VirusScan® Plus 2009 (30 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Memory	4GB or 6GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in 320GB (5400 rpm) or 500GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, not removable		
Widescreen display Camera	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus		
Discrete graphics	ATI™ Mobility Radeon™ HD 4330 , PCI Express® x16, 512MB memory, DirectX® 10.1, ATI Avivo™ HD, VGA connector, HDMI connector, HDCP-compliant		
Keyboard Light sensor Touch pad	Full-size keyboard, 6-row, Fn keys, recovery button None Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 13.3" x 9.3" x 0.9-1.1"; 338.5mm x 235.5mm x 23~28.9mm 6-cell: starting at 4.62 lb (2.1kg) Black top with square weave texture, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell 6-cell: up to 4 hr		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), 82801IUX-SFF I/O Controller Hub (ICH9M-SFF) (SATA 3Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/34 Multicard reader	None 4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator None Gigabit ethernet, RealTek® 8111L High Definition (HD) Audio, RealTek ALC272 codec / two stereo speakers (1.5 watt), Dolby® Home Sound Room™ audio system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm) Power-on password, hard disk password, supervisor password, security keyhole		Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Security Fingerprint reader	None		

See footnotes for important warranty information
US models announced October 23, 2009

Intel Centrino® 2 processor technology

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Limited Warranty¹²

- ⇒ 1-year parts and labor
- ⇒ Depot repair service¹⁹
- ⇒ Service upgrade options (in eligible locations):⁹
 - 1-year Onsite with accidental damage protection 78Y1533
 - 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 78Y1540
 - 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 78Y1541
- ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686



Lenovo IdeaPad U550



Lenovo IdeaPad U550



Lenovo IdeaPad U550



Lenovo IdeaPad U550 cover



Lenovo IdeaPad U550



Lenovo IdeaPad U550
Lightweave pattern cover

Type-model	Pro- cessor	GHz	Memory	Widescreen display	Cam- era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Finger Top color print reader	Blue- tooth	Battery	Win 7 preload	Avail date
3749-5EU	SU4100	1.30	3GB	15.6" HD	1.3M	GMA 4500MHD	250GB ⁸	DVD±RW	Intel 5100 ²⁸	Black Fing	Blue	6-cell	Prem 32	Oct 09
3749-54U	SU4100	1.30	4GB	15.6" HD	1.3M	GMA 4500MHD	250GB	DVD±RW	Intel 5100	Black Fing	Blue	6-cell	Prem 32	Oct 09
3749-59U	SU7300	1.30	4GB	15.6" HD	1.3M	GMA 4500MHD	320GB	DVD±RW	Intel 5100	Black Fing		6-cell	Prem 64	Oct 09
3749-5BU	SU4100	1.30	3GB	15.6" HD	1.3M	GMA 4500MHD	250GB	DVD±RW	11b/g ¹¹	Black Fing		6-cell	Prem 32	Apr 10

- **15.6" HD widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Home Sound Room™ premium audio system with two stereo speakers**
- **HDMI port, HDCP-compliant**
- **Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® processor SU4100 with ultra low voltage, dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo processor SU7300 with ultra low voltage, dual-core , 800MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Home Premium 32 - <i>Some:</i> Genuine Windows 7 Home Premium 64	
Memory	3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;		Preloaded applications ¹⁴ (only some listed) • Lenovo™ OneKey Recovery • Lenovo ReadyComm • McAfee VirusScan® Plus 2009 (30 days of virus definitions) • Adobe® Reader® • Fingerprint Software • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)	
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, not removable			
Widescreen display	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus			
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, External monitor support via analog VGA DB-15 connector / digital HDMI connector; Maximum external resolution: 2048x1536@75Hz (VGA)			
Keyboard	Full-size keyboard, 6-row, multimedia Fn keys, recovery button			
Numeric keypad	Numeric keypad on right of keyboard			
Light sensor	Ambient light sensor			
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch			
Dimensions ³	(WxDxH): 14.8" x 9.9" x 0.9-1.2"; 377mm x 251mm x 24~29.4mm			
Weight ²	6-cell: starting at 5.3 lb (2.4kg)			
Case color	Black top with square weave texture, black bottom			
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic			
Battery - type	Lithium Ion 6-cell		65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant	
Battery - life ¹⁰	6-cell: up to 6 hr			
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), 82801IUX-SFF I/O Controller Hub (ICH9M-SFF) (SATA 3Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)			
ExpressCard/34 Multicard reader	None 4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		Limited Warranty ¹² ➤ 1-year parts and labor ➤ Depot repair service ¹⁹ ➤ Service upgrade options (in eligible locations): ⁹ • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ➤ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686	
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
TV tuner	None			
PCIe Mini Card	Two Mini PCI Express slots			
11b/g ¹¹	<i>Some:</i> 11b/g wireless ⁴ , PCIe Mini Card, Broadcom® BCM4312			
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel WiFi Link 5100, 1x2 (Shirley Peak)			
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator			
Modem	None			
Ethernet	Gigabit ethernet, Atheros® AR8131			
Audio support	High Definition (HD) Audio, RealTek AD269 codec / two stereo speakers (1.5 watt), Dolby® Home Sound Room™ audio system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor			

See footnotes for important warranty information

US model announced April 7, 2010; previous models on October 22, 2009

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(URL2-1) April 2010

Type-model	Pro- cessor	GHz	Memory	Widescreen display	Cam- era	Switchable graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Finger print reader	Blue- tooth	Battery	Win 7 preload	Avail date
3749-55U	SU7300	1.30	4GB	15.6" HD	1.3M	GMA, HD4330	320GB ⁸	DVD±RW	Intel 5100 ²⁸	Black	Fing	Blue	6-cell	Prem 64	Oct 09

- **15.6" HD widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Home Sound Room™ premium audio system with two stereo speakers**
- **HDMI port, HDCP-compliant**
- **Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor SU7300 with ultra low voltage, dual-core , 800MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo™ OneKey Recovery • Lenovo ReadyComm • McAfee VirusScan® Plus 2009 (30 days of virus definitions) • Adobe® Reader® • Fingerprint Software • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, not removable		
Widescreen display Camera	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus		
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, and ATI™ Mobility Radeon™ HD 4330 , PCI Express® x16, 512MB memory, DirectX® 10.1, ATI Avivo™ HD, VGA connector, HDMI connector, HDCP-compliant		
Keyboard Numeric keypad Light sensor Touch pad	Full-size keyboard, 6-row, multimedia Fn keys, recovery button Numeric keypad on right of keyboard Ambient light sensor Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 14.8" x 9.9" x 0.9-1.2"; 377mm x 251mm x 24~29.4mm 6-cell: starting at 5.3 lb (2.4kg) Black top with square weave texture, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell 6-cell: Up to 4 hr (discrete graphics); up to 6 hr (integrated graphics)		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), 82801IUX-SFF I/O Controller Hub (ICH9M-SFF) (SATA 3Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)		
ExpressCard/34 Multicard reader	None 4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator None Gigabit ethernet, Atheros® AR8131 High Definition (HD) Audio, RealTek AD269 codec / two stereo speakers (1.5 watt), Dolby® Home Sound Room™ audio system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm) Power-on password, hard disk password, supervisor password, security keyhole		Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Security Fingerprint reader	Fingerprint reader on palm rest, swipe sensor		

See footnotes for important warranty information
US model announced October 22, 2009

Intel Centrino® 2 processor technology

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Lenovo IdeaPad V460



Lenovo IdeaPad V460



Lenovo IdeaPad V460



Lenovo IdeaPad V460



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Lenovo IdeaPad V460

IdeaPad™ V460 (0886) - GMA (Windows 7) - web models

Personal Systems Reference (PSREF)

Type-model	Pro- cessor	Max turbo GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Finger print reader	Blue- tooth	Win7 preload	Avail date
0886-27U	i3-330M	2.13	None	4GB	14.0" HD	LED	1.3M	Intel HD	320GB ⁸	DVD±RW	Intel 1000	Black	Fing	Blue	Prem 64	Mar 10

- **14.0" widescreen, glossy display with LED backlight**
- **Integrated 1.3 megapixel camera**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **Fingerprint reader for easy and secure login**
- **BioExcess provides a convenient way to quickly encrypt or decrypt files, switch accounts, and manage password**
- **USB Port Locker prevents unauthorized access by requiring fingerprint scan to unlock**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-330M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache or		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live Essential • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Lenovo Security Suite • USB Port Locker • BioExcess
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;		
Diskette drive	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™		
Widescreen display	14.0" (355.6mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector		
Keyboard	Full-size keyboard, 6-row, recovery key		
Touch controls	Touch-sensitive buttons for volume +/-, mute, and Lenovo Security Suite		
Light sensor	None		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	(WxDxH): 13.4" x 9.2" x 0.8" to 1.3"; 340mm x 234.6mm x 20.2mm to 32.9mm		
Weight ²	with optical drive and battery: <i>6-cell</i> : 4.85 lb (2.2 kg)		
Case color	Black top, black bottom		
Case material	<i>Top and palm rest:</i> Aluminum <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	Up to 4 hr		
Chipset	Mobile Intel HM55 Express Chipset		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	4-in-1 reader (MMC, Memory Stick PRO™, Secure Digital Card, SD pro Card)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCIe Mini Card slots		
Intel 1000	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface		
Modem	None		
Ethernet	Gigabit ethernet, Atheros® AR8131, PCIe x1		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / stereo speakers (1.5 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (stereo, 3.5 mm)		
Security	Power-on password, hard disk password, supervisor password, security lockhole		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor		
			65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
			Limited Warranty ¹² ➤ 1-year parts and labor ➤ Depot repair service ¹⁹ ➤ Service upgrade options (in eligible locations): ⁹ • 1-year Lenovo Onsite Repair ¹³ 78Y1532 • 1-year Onsite with accidental damage protection 78Y1533 • 2-year Lenovo Onsite Repair ¹³ 78Y1536 • 3-year Lenovo Depot Repair 78Y1538 ➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686

See footnotes for important warranty information
US model announced March 24, 2010

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- Limited Warranty**¹²
- ⇒ **1-year parts and labor**
 - ⇒ **Depot repair service**¹⁹
 - ⇒ **Service upgrade options (in eligible locations):**⁹
 - **1-year Lenovo Onsite Repair**¹³ 78Y1532
 - **1-year Onsite with accidental damage protection** 78Y1533
 - **2-year Lenovo Onsite Repair**¹³ 78Y1536
 - **3-year Lenovo Depot Repair** 78Y1538
 - ⇒ **24x7¹⁶ toll-free support for warranty issues during the warranty period**¹² via 877-453-6686

IdeaPad™ V460 (0886) - Switchable (web models)

Personal Systems Reference (PSREF)

Type-model	Pro- cessor	GHz	Max turbo (GHz)	Widescreen Memory display	CCFL or LED	Cam- era	Switchable graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Finger print reader	Blue- tooth	Win7 preload	Avail date
0886-26U	i5-430M	2.26	2.53	4GB	14.0" HD	LED	1.3M Intel HD, GF 310M	320GB ⁸	DVD±RW	Intel 1000	Black	Fing	Blue	Prem 64 Mar 10

- **14.0" widescreen, glossy display with LED backlight**
- **Dynamic switching between discrete and integrated graphics (user selectable)**
- **Integrated 1.3 megapixel camera**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **Fingerprint reader for easy and secure login**
- **BioExcess provides a convenient way to quickly encrypt or decrypt files, switch accounts, and manage password**
- **USB Port Locker prevents unauthorized access by requiring fingerprint scan to unlock**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i5 processor i5-430M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live Essential • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Lenovo Security Suite • USB Port Locker • BioExcess
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™		
Widescreen display	14.0" (355.6mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Switchable graphics	Switches between discrete and integrated graphics via graphic switch Intel HD Graphics in processor, and NVIDIA® GeForce® 310M , PCI Express x16, 512MB memory, DirectX 10.1, PureVideo® HD technology, CUDA™ technology, VGA, HDMI, HDCP-compliant		
Keyboard	Full-size keyboard, 6-row, recovery key		
Touch controls	Touch-sensitive buttons for volume +/-, mute, and Lenovo Security Suite		
Light sensor	None		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	(WxDxH): 13.4" x 9.2" x 0.8" to 1.3"; 340mm x 234.6mm x 20.2mm to 32.9mm		
Weight ²	with optical drive and battery: 6-cell : 4.85 lb (2.2 kg)		
Case color	Black top, black bottom		
Case material	<i>Top and palm rest:</i> Aluminum <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	Up to 4 hr		
Chipset	Mobile Intel HM55 Express Chipset		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	4-in-1 reader (MMC, Memory Stick PRO™, Secure Digital Card, SD pro Card)		
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCIe Mini Card slots		
Intel 1000	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface		
Modem	None		
Ethernet	Gigabit ethernet, Atheros® AR8131, PCIe x1		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / stereo speakers (1.5 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (stereo, 3.5 mm)		
Security	Power-on password, hard disk password, supervisor password, security lockhole		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor		
			65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
			Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year Lenovo Onsite Repair ¹³ 78Y1532 • 1-year Onsite with accidental damage protection 78Y1533 • 2-year Lenovo Onsite Repair ¹³ 78Y1536 • 3-year Lenovo Depot Repair 78Y1538 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686

See footnotes for important warranty information
US model announced March 24, 2010

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(ALM1-2) March 2010

ideapad



Lenovo IdeaPad Y450



Lenovo IdeaPad Y450



Lenovo IdeaPad Y450



Lenovo IdeaPad Y450



Lenovo IdeaPad Y450



Lenovo IdeaPad Y450

Type-model	Pro-processor	GHz	Memory	Widescreen display	CCFL or LED	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	ENERGY STAR 5.0	Vista preload	Avail date
4189-34U	T3400	2.16	3GB	14.0" WXGA	LED	1.3M	GMA	160GB ⁸	DVD±RW	Intel 5100 ²⁸	Black		ES50	Prem 32	Apr 09
4189-32U	T4200	2.00	2GB	14.0" WXGA	LED	1.3M	GMA	160GB	DVD±RW	Intel 5100	Black		ES50	Prem 32	Apr 09
4189-35U	T4200	2.00	3GB	14.0" WXGA	LED	1.3M	GMA	250GB	DVD±RW	Intel 5100	Black		ES50	Prem 32	Apr 09
4189-7GU	T4200	2.00	4GB	14.0" WXGA	LED	1.3M	GMA	250GB	DVD±RW	Intel 5100	Black		ES50	Prem 64	Oct 09
4189-67U	T4300	2.10	3GB	14.0" WXGA	LED	1.3M	GMA	250GB	DVD±RW	Intel 5100	Black	Blue	ES50	Prem 32	Dec 09
4189-36U	T6400	2.00	3GB	14.0" WXGA	LED	1.3M	GMA	250GB	DVD±RW	* Intel 5100	Black		ES50	Prem 32	Apr 09
4189-38U	T6400	2.00	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Apr 09
4189-7HU	T6400	2.00	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Oct 09
4189-63U	T6500	2.10	3GB	14.0" WXGA	LED	1.3M	GMA	250GB	DVD±RW	* Intel 5100	Black		ES50	Prem 32	Aug 09
4189-7AU	T6500	2.10	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Aug 09
4189-64U	T6500	2.10	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Aug 09
4189-2AU	T6500	2.10	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Aug 09
4189-2BU	T6500	2.10	4GB	14.0" WXGA	LED	1.3M	GMA	500GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Aug 09
4189-2CU	P7350	2.00	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Aug 09
4189-2DU	P7350	2.00	4GB	14.0" WXGA	LED	1.3M	GMA	500GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Aug 09

- 14.0" widescreen, glossy display with LED backlight
- Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive slide bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two stereo speakers
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® processor T3400, T4200, or T4300 with dual-core, 1MB L2 cache, T3400: 667MHz system bus; T4200/T4300: 800MHz system bus or Intel Core™ 2 Duo processor T6400 or T6500 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7350 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows® Vista® Home Premium 32 - Some: Genuine Windows Vista Home Premium 64 ♦ Vista Premium logo
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;	Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader® • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software
Diskette drive	None	
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7 mm high, tray-in	
SATA disk	160GB, 250GB, 320GB, or 500GB / SATA 3.0Gb/s, 9.5mm high, 5400 rpm	
Widescreen display	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, HDMI port supporting HDCP to output protected content	
Keyboard	Full-size keyboard, 6-row, 84-key, recovery key	
Touch controls	Lenovo Desktop Navigator, OneKey Theater, Dolby control center key, mute, volume up, and volume down buttons	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³	(WxDxH): 13.4" x 9.1" x 0.8" to 1.4"; 340mm x 232mm x 21mm to 34.8mm	
Weight ²	with optical drive and battery: 6-cell: 4.63 lb (2.1 kg)	
Case color	Black top with engraved pattern, black bottom	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion 6-cell	65-watt AC adapter
Battery - life ¹⁰	Up to 4.5 hr	Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)	
ExpressCard/34	One slot (ExpressCard/34)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Three USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, IEEE 1394 FireWire 400 (4-pin connector)	Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
TV tuner	None	
Mini PCI Express	Two Mini PCI Express slots	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
Bluetooth™	Some: Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator	
Modem	None	
Ethernet	Gigabit ethernet, Broadcom® BCM5784, PCIe x1	
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack / SPDIF-out (stereo, 3.5 mm)	
Security	Hard disk password, user password, supervisor password, security lockhole	
Fingerprint reader	None	

See footnotes for important warranty information

* Intel Centrino® processor technology

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† US model announced December 17, 2009;

♦ Intel Centrino 2 processor technology

(KTW1-1) December 2009

previous models on April 22, August 19, or September 30, 2009

✗ US models withdrawn effective October 2009

Type-model	Pro- cessor	GHz	Memory	Widescreen display	CCFL or LED	Cam- era	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue- tooth	ENERGY STAR 5.0	Win7 preload	Avail date
4189-6LU	T4300	2.10	3GB	14.0" WXGA	LED	1.3M	GMA	250GB ⁸	DVD±RW	Intel 5100 ²⁸	Black		ES50	Prem 64	Oct 09
4189-6GU	T4300	2.10	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	Intel 5100	Black	Blue	ES50	Prem 64	Oct 09
4189-6FU	T6600	2.20	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Oct 09
4189-6AU	T6600	2.20	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	* Intel 5100	Black	Blue	ES50	Prem 64	Oct 09
4189-6EU	T6600	2.20	4GB	14.0" WXGA	LED	1.3M	GMA	500GB	DVD±RW	* Intel 5100	Black		ES50	Prem 64	Oct 09
4189-69U	P7450	2.13	4GB	14.0" WXGA	LED	1.3M	GMA	320GB	DVD±RW	÷ Intel 5100	Black		ES50	Prem 64	Oct 09
4189-68U	P7450	2.13	4GB	14.0" WXGA	LED	1.3M	GMA	500GB	DVD±RW	÷ Intel 5100	Black		ES50	Prem 64	Oct 09

- 14.0" widescreen, glossy display with LED backlight
- Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive slide bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two stereo speakers
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Processor T4300 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6600 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7450 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • McAfee VirusScan® Plus 2009 (30 days of virus definitions) • Adobe® Reader • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software				
Memory	3GB or 4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;														
Diskette drive	None														
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7 mm high, tray-in														
SATA disk	250GB , 320GB , or 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high														
Widescreen display	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content														
Keyboard	Full-size keyboard, 6-row, 84-key														
Touch controls	Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key recovery key, mute, volume up, volume down button														
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch														
Dimensions ³	(WxDxH): 13.4" x 9.1" x 0.8" to 1.4"; 340mm x 232mm x 21mm to 34.8mm														
Weight ²	with optical drive and battery: <i>6-cell</i> : 4.63 lb (2.1 kg)														
Case color	Black top with engraved pattern, black bottom														
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell														
Battery - life ¹⁰	Up to 4.5 hr														
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)														
ExpressCard/34	One slot (ExpressCard/34)														
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)														
Ports	Three USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, IEEE 1394 FireWire 400 (4-pin connector)														
TV tuner	None														
Mini PCI Express	Two Mini PCI Express slots														
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator														
Modem	None														
Ethernet	Gigabit ethernet, Broadcom® BCM5784, PCIe x1														
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm)														
Security	Hard disk password, user password, supervisor password, security lockhole														
Fingerprint reader	None														

See footnotes for important warranty information
US models announced October 23, 2009;

* Intel Centrino® processor technology
÷ Intel Centrino 2 processor technology

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(KTW1-4) October 2009

Type-model	Pro- cessor	GHz	Memory	Widescreen display	CCFL or LED	Cam- era	Discrete graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue- tooth	ENERGY STAR 5.0	Vista preload	Avail date
4189-39U	P7450	2.13	4GB	14.0" WXGA	LED	Cam	G110M	320GB ⁸	DVD±RW	Intel 5100 ²⁸	Black	Blue	ES50	Prem 64	Apr 09
4189-7KU	P7450	2.13	4GB	14.0" WXGA	LED	Cam	G110M	320GB	DVD±RW	Intel 5100	Black	Blue	ES50	Prem 64	Oct 09
4189-66U	P8700	2.53	4GB	14.0" WXGA	LED	Cam	GT 130M	320GB	DVD±RW	Intel 5100	Black	Blue	ES50	Prem 64	Aug 09

- **14.0" widescreen, glossy display with LED backlight**
- **Lenovo® Desktop Navigator easily toggles between shortcuts, files, and other frequently used programs with touch-sensitive slide bar**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Dolby® Home Theater® premium audio system with two stereo speakers**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor P7450 or P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® Vista® Home Premium 64 ✧ Vista Premium logo Preloaded applications ¹⁴ (only some listed) • Lenovo® OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7 mm high, slot-in		
SATA disk	320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable		
Widescreen display	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		90-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Discrete graphics	<i>Some:</i> NVIDIA® GeForce® G110M , PCI Express® x16, 256MB memory, DirectX® 10, PureVideo® HD technology, VGA, HDMI, HDCP-compliant <i>Some:</i> NVIDIA GeForce GT 130M , PCI Express x16, 512MB memory, DirectX 10, PureVideo HD technology, CUDA® technology, VGA, HDMI, HDCP-compliant		
Keyboard	Full-size keyboard, 6-row, 84-key		
Touch controls	Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key, recovery key, mute, volume up, volume down button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	(WxDxH): 13.4" x 9.1" x 0.8" to 1.4"; 340mm x 232mm x 21mm to 34.8mm		
Weight ²	with optical drive and battery: <i>6-cell</i> : 4.63 lb (2.1 kg)		
Case color	Black top with engraved pattern, black bottom		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	Up to 3.5 hr		
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Three USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, IEEE 1394 FireWire 400 (4-pin connector)		
TV tuner	None		
Mini PCI Express	Two Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator		
Modem	None		
Ethernet	Gigabit ethernet, Broadcom® BCM5784, PCIe x1		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm)		
Security	Hard disk password, user password, supervisor password, security lockhole		
Fingerprint reader	None		

See footnotes for important warranty information

✧ Intel Centrino® 2 processor technology

✧ US model announced September 30, 2009; previous models on April 22 or August 19, 2009

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(KTW1-3) October 2009

Type-model	Pro- cessor	GHz	Memory	Widescreen display	CCFL or LED	Cam- era	Discrete graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue- tooth	ENERGY STAR 5.0	Win7 preload	Avail date
4189-6HU	P8700	2.53	4GB	14.0" WXGA	LED	1.3M	GT 240M	320GB ⁸	DVD±RW	✚ Intel 5100 ²⁸	Black	Blue	ES50	Prem 64	Oct 09

- **14.0" widescreen, glossy display with LED backlight**
- **Lenovo® Desktop Navigator easily toggles between shortcuts, files, and other frequently used programs with touch-sensitive slide bar**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Dolby® Home Theater® premium audio system with two stereo speakers**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo® OneKey Recovery • Lenovo ReadyComm • McAfee VirusScan® Plus 2009 (30 days of virus definitions) • Adobe® Reader • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7 mm high, tray-in		
SATA disk	320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable		
Widescreen display	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Discrete graphics	NVIDIA® GeForce® GT 240M , PCI Express x16, 512MB memory, DirectX 10.1, PureVideo® HD technology, CUDA™ technology, VGA, HDMI, HDCP-compliant		
Keyboard	Full-size keyboard, 6-row, 84-key		
Touch controls	Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key, recovery key, mute, volume up, volume down button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	(WxDxH): 13.4" x 9.1" x 0.8" to 1.4"; 340mm x 232mm x 21mm to 34.8mm		
Weight ²	with optical drive and battery: <i>6-cell</i> : 4.63 lb (2.1 kg)		
Case color	Black top with engraved pattern, black bottom		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	Up to 3.5 hr		
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Three USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, IEEE 1394 FireWire 400 (4-pin connector)		
TV tuner	None		
Mini PCI Express	Two Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator		
Modem	None		
Ethernet	Gigabit ethernet, Broadcom® BCM5784, PCIe x1		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm)		
Security	Hard disk password, user password, supervisor password, security lockhole		
Fingerprint reader	None		
			Limited Warranty ¹² ➤ 1-year parts and labor ➤ Depot repair service ¹⁹ ➤ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ➤ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686

See footnotes for important warranty information
US model announced October 23, 2009

✚ Intel Centrino® 2 processor technology

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ideapad



Lenovo IdeaPad Y460



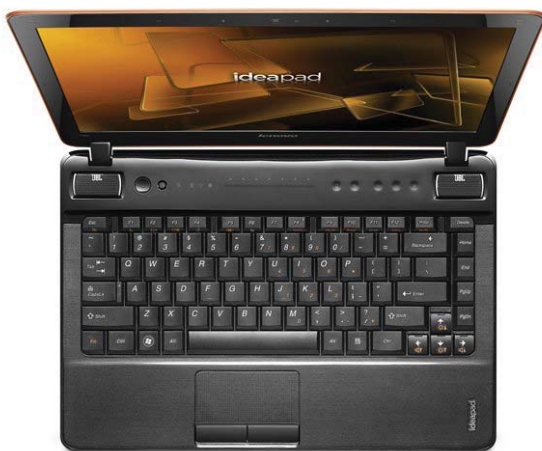
Lenovo IdeaPad Y460



Lenovo IdeaPad Y460



Lenovo IdeaPad Y460



Lenovo IdeaPad Y460



Lenovo IdeaPad Y460

Type-model	Pro- cessor	GHz	Memory	Widescreen display	CCFL or LED	Cam- era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Bluetooth	Win7 preload	Avail date
0633-47U	i3-330M	2.13	4GB	14.0" WXGA	LED	1.3M	Intel HD	320GB ⁸	DVD±RW	Intel 1000	Black	Bluetooth	Prem 64	Mar 10

- 14.0" widescreen, glossy display with LED backlight
- Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive SlideNav bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two JBL® stereo speakers
- Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-330M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • ooVoo™ • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live Essential • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo DirectShare • Lenovo SlideNav
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;		
Diskette drive	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		
Widescreen display	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI, HDCP-compliant		
Keyboard	Full-size keyboard, 6-row, recovery key		
Touch controls	Lenovo SlideNav bar, Power on, OneKey Theater, and Energy Management keys mute, volume up, volume down buttons		
Light sensor	Ambient light sensor		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	(WxDxH): 13.4" x 9.3" x 0.8" to 1.3"; 340mm x 235mm x 20mm to 32.8mm		
Weight ²	with optical drive and battery: <i>6-cell</i> : 4.71 lb (2.1 kg)		
Case color	Black top with engraved pattern, black bottom		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	Up to 4 hr		
Chipset	Mobile Intel HM55 Express Chipset		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Three USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCIe Mini Card slots		
Intel 1000	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface, LED indicator		
Modem	None		
Ethernet	Gigabit ethernet, Broadcom® BCM57780, PCIe x1		
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / JBL® stereo speakers (1.5 watt x 2), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (S/PDIF-out) (stereo, 3.5 mm)		
Security	Power-on password, hard disk password, supervisor password, security lockhole		
Fingerprint reader	None		

See footnotes for important warranty information
US model announced February 16, 2010

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(GL1-1) March 2010

Type-model	Pro- cessor	Max turbo GHz (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Switchable graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Blue- tooth	Win7 preload	Avail date
0633-42U	i3-330M	2.13	4GB	14.0" WXGA	LED	1.3M	Intel HD, HD 5650	500GB ⁸	DVD±RW	Intel 1000	Black	None	Prem 64	Mar 10
0633-44U	i5-430M	2.26 2.53	4GB	14.0" WXGA	LED	1.3M	Intel HD, HD 5650	500GB	DVD±RW	Intel 1000	Black	None	Prem 64	Mar 10

- 14.0" widescreen, glossy display with LED backlight
- Dynamic switching between discrete and integrated graphics (user selectable)
- Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive SlideNav bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two JBL® stereo speakers
- Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	<i>Widescreen flexibility; two-spindle</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache or Intel Core i5 processor i5-430M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• ooVoo™• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live Essential• CyberLink YouCam• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Media Show• Lenovo DirectShare• Lenovo SlideNav
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available	
Diskette drive	None	
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in	
SATA disk	500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high	
Widescreen display	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator	
Switchable graphics	Switches between discrete and integrated graphics via graphic switch Intel HD Graphics in processor, and ATI™ Mobility Radeon™ HD 5650 , PCI Express® x16, 1GB memory, DirectX® 11, ATI Avivo™ HD, VGA connector, HDMI connector, HDCP-compliant	
Keyboard	Full-size keyboard, 6-row, recovery key	
Touch controls	Lenovo SlideNav bar, Power on, OneKey Theater, and Energy Management keys	
Light sensor	Ambient light sensor	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³	(WxDxH): 13.4" x 9.3" x 0.8" to 1.3"; 340mm x 235mm x 20mm to 32.8mm	90-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
Weight ²	with optical drive and battery: <i>6-cell</i> : 4.85 lb (2.2 kg)	
Case color	Black top with engraved pattern, black bottom	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion 6-cell	
Battery - life ¹⁰	Up to 3.5 hr	
Chipset	Mobile Intel HM55 Express Chipset	
ExpressCard/34	One slot (ExpressCard/34)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Three USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
TV tuner	None	Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 1-year Lenovo Onsite Repair¹³ 78Y1532• 1-year Onsite with accidental damage protection 78Y1533• 2-year Lenovo Onsite Repair¹³ 78Y1536• 3-year Lenovo Depot Repair 78Y1538 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
PCIe Mini Card	Two PCIe Mini Card slots	
Intel 1000	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2	
Bluetooth™	None	
Modem	None	
Ethernet	Gigabit ethernet, Broadcom® BCM57780, PCIe x1	
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / JBL® stereo speakers (1.5 watt x 2), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (S/PDIF-out) (stereo, 3.5 mm)	
Security	Power-on password, hard disk password, supervisor password, security lockhole	
Fingerprint reader	None	

See footnotes for important warranty information
 US models announced March 11, 2010

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Limited Warranty¹²

- **1-year parts and labor**
- **Depot repair service¹⁹**
- **Service upgrade options**
 (in eligible locations):⁹
 - **1-year Lenovo Onsite Repair¹³**
78Y1532
 - **1-year Onsite with accidental damage protection**
78Y1533
 - **2-year Lenovo Onsite Repair¹³**
78Y1536
 - **3-year Lenovo Depot Repair**
78Y1538
- **24x7¹⁶ toll-free support for warranty issues during the warranty period¹²**
 via 877-453-6686

IdeaPad™ Y460 (0633) - Switchable (web models)

Personal Systems Reference (PSREF)

Type-model	Pro- cessor	Max turbo GHz (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Switchable graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Blue- tooth	Win7 preload	Avail date	
0633-46U	i5-520M	2.40	2.93	4GB	14.0" WXGA	LED	1.3M	Intel HD, HD 5650	500GB ⁸	DVD±RW	Intel 1000	Black	Blue	Prem 64	Mar 10

- **14.0" widescreen, glossy display with LED backlight**
- **Dynamic switching between discrete and integrated graphics (user selectable)**
- **Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive SlideNav bar**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Dolby® Home Theater® premium audio system with two JBL® stereo speakers**
- **Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• ooVoo™• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live Essential• CyberLink YouCam• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Media Show• Lenovo DirectShare• Lenovo SlideNav
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;		
Diskette drive	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		
Widescreen display	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Switchable graphics	Switches between discrete and integrated graphics via graphic switch Intel HD Graphics in processor, and ATI™ Mobility Radeon™ HD 5650 , PCI Express® x16, 1GB memory, DirectX® 11, ATI Avivo™ HD, VGA connector, HDMI connector, HDCP-compliant		
Keyboard	Full-size keyboard, 6-row, recovery key		
Touch controls	Lenovo SlideNav bar, Power on, OneKey Theater, and Energy Management keys mute, volume up, volume down buttons		
Light sensor	Ambient light sensor		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	(WxDxH): 13.4" x 9.3" x 0.8" to 1.3"; 340mm x 235mm x 20mm to 32.8mm		
Weight ²	with optical drive and battery: <i>6-cell</i> : 4.85lb (2.2 kg)		
Case color	Black top with engraved pattern, black bottom		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	Up to 3.5 hr		
Chipset	Mobile Intel HM55 Express Chipset		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Three USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCIe Mini Card slots		
Intel 1000	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface, LED indicator		
Modem	None		
Ethernet	Gigabit ethernet, Broadcom® BCM57780, PCIe x1		
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / JBL® stereo speakers (1.5 watt x 2), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (S/PDIF-out) (stereo, 3.5 mm)		
Security	Power-on password, hard disk password, supervisor password,, security lockhole		
Fingerprint reader	None		
			Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 1-year Lenovo Onsite Repair¹³ 78Y1532• 1-year Onsite with accidental damage protection 78Y1533• 2-year Lenovo Onsite Repair¹³ 78Y1536• 3-year Lenovo Depot Repair 78Y1538 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686

See footnotes for important warranty information
US model announced February 16, 2010

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Lenovo IdeaPad Y550



Lenovo IdeaPad Y550



Lenovo IdeaPad Y550



Lenovo IdeaPad Y550



Lenovo IdeaPad Y550



Lenovo IdeaPad Y550

Type-model	Processor	GHz	Memory	Widescreen display	CCFL or LED	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	ENERGY STAR 5.0	Vista preload	Avail date
4186-48U	T4200	2.00	2GB	15.6" WXGA	LED	Cam	GMA	250GB ⁸	DVD±RW	Intel 5100 ²⁸	Black	None		Prem 32	May 09
4186-46U	T4200	2.00	4GB	15.6" WXGA	LED	Cam	GMA	320GB	DVD±RW	Intel 5100	Black	None		Prem 64	May 09
✖ 4186-45U	T6400	2.00	3GB	15.6" WXGA	LED	Cam	GMA	250GB	DVD±RW	* Intel 5100	Black	None	ES50	Prem 32	May 09
✖ 4186-44U	T6400	2.00	4GB	15.6" WXGA	LED	Cam	GMA	320GB	DVD±RW	* Intel 5100	Black	None	ES50	Prem 64	May 09
✖ 4186-5DU	T6500	2.10	4GB	15.6" WXGA	LED	Cam	GMA	320GB	DVD±RW	* Intel 5100	Black	None	ES50	Prem 64	Aug 09
✖ 4186-75U	T6500	2.10	4GB	15.6" WXGA	LED	Cam	GMA	320GB	DVD±RW	* Intel 5100	Black	None	ES50	Prem 64	Aug 09
✖ 4186-55U	T6500	2.10	4GB	15.6" WXGA	LED	Cam	GMA	320GB	DVD±RW	* Intel 5100	Black	None	ES50	Prem 64	Aug 09
✖ 4186-56U	T6500	2.10	4GB	15.6" WXGA	LED	Cam	GMA	500GB	DVD±RW	* Intel 5100	Black	None	ES50	Prem 64	Aug 09
⚡ 4186-58U	P7350	2.00	4GB	15.6" WXGA	LED	Cam	GMA	320GB	DVD±RW	⚡ Intel 5100	Black	None	ES50	Prem 64	Aug 09
⚡ 4186-79U	P7350	2.00	4GB	15.6" WXGA	LED	Cam	GMA	500GB	DVD±RW	⚡ Intel 5100	Black	None	ES50	Prem 64	Aug 09
⚡ 4186-59U	P7350	2.00	4GB	15.6" WXGA	LED	Cam	GMA	500GB	DVD±RW	⚡ Intel 5100	Black	None	ES50	Prem 64	Aug 09

- 15.6" widescreen, glossy display with LED backlight
- Lenovo® Desktop Navigator easily toggles between shortcuts, files, and other frequently used programs with touch-sensitive slide bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two stereo speakers and one subwoofer
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Processor T4200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6400 or T6500 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7350 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows® Vista® Home Premium 32 - Some: Genuine Windows Vista Home Premium 64 ✧ Vista Premium logo
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; 1 socket available	Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Lenovo Desktop Navigator software
Diskette drive	None	Available at these retailers • lenovo.com
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7 mm high, tray-in	
SATA disk	250GB, 320GB, or 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable	
Widescreen display	15.6" (396.2mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content	65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating Some: ENERGY STAR® 5.0-compliant RoHS-compliant
Keyboard	Full-size keyboard, 6-row, recovery key, mute, volume up, volume down button	
Touch controls	Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³	(WxDxH): 15.2" x 10.0" x 1.02" to 1.5"; 385mm x 255mm x 26mm to 37mm with optical drive and battery: 6-cell: 6.06 lb (2.75 kg)	
Weight ²	Black top, black bottom	Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇨ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Case color	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Case material	Lithium Ion 6-cell	
Battery - type	Up to 4.5 hr	
Battery - life ¹⁰		
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)	
ExpressCard/34	One slot (ExpressCard/34)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Two USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR	
TV tuner	None	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
Bluetooth™	None	
Modem	None	
Ethernet	Gigabit ethernet, Broadcom® BCM5784, PCIe x1	
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / two stereo speakers (2 watt) and subwoofer (2 watt), Dolby® Home Theater® Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm)	
Security	Hard disk password, user password, supervisor password, security lockhole	
Fingerprint reader	None	

See footnotes for important warranty information

⚡ US models announced August 19, 2009;
previous models on May 6, 2009

✖ US models withdrawn effective October 2009

* Intel Centrino® processor technology

⚡ Intel Centrino 2 processor technology

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Type-model	Processor	GHz	Memory	Widescreen display	CCFL or LED	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	ENERGY STAR 5.0	Win7 preload	Avail date
4186-5FU	T6600	2.20	4GB	15.6" WXGA	LED	1.3M	GMA	320GB ⁸	DVD±RW	* Intel 5100 ²⁸	Black	None	ES50	Prem 64	Dec 09
4186-5PU	T6600	2.20	4GB	15.6" WXGA	LED	1.3M	GMA	500GB	DVD±RW	* Intel 5100	Black	None	ES50	Prem 64	Dec 09

- 15.6" widescreen, glossy display with LED backlight
- Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive slide bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace™ face recognition software helps control access to your notebook by recognizing your face
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two stereo speakers and one subwoofer
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor T6600 with dual-core, 800MHz system bus, and 2MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64-bit Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • McAfee® VirusScan® Plus 2009 (30 days of virus definitions) • Adobe® Reader® • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Media Show • Lenovo Desktop Navigator software
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7 mm high, tray-in 320GB (5400 rpm) or 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable		
Widescreen display Camera	15.6" (396.2mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content		
Keyboard Touch controls Touch pad	Full-size keyboard, 6-row, recovery key, mute, volume up, volume down button Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>(WxDxH):</i> 15.2" x 10.0" x 1.02" to 1.5"; 385mm x 255mm x 26mm to 37mm with optical drive and battery: <i>6-cell:</i> 6.06 lb (2.75 kg) Black top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell Up to 4.5 hr		
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)		
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Two USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR		
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None Gigabit ethernet, Broadcom® BCM5784, PCIe x1 High Definition (HD) Audio, RealTek® ALC272 codec / two stereo speakers (2 watt) and subwoofer (2 watt), Dolby® Home Theater® Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm) Hard disk password, user password, supervisor password, security lockhole		Limited Warranty ¹² ➤ 1-year parts and labor ➤ Depot repair service ¹⁹ ➤ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Security Fingerprint reader	None		

See footnotes for important warranty information
US models announced December 17, 2009

* Intel Centrino® processor technology

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(BM2-3) December 2009

Limited Warranty¹²
 ➤ 1-year parts and labor
 ➤ Depot repair service¹⁹
 ➤ Service upgrade options (in eligible locations):⁹
 • 1-year Onsite with accidental damage protection 78Y1533
 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 78Y1540
 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 78Y1541
 ➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686

Type-model	Processor	GHz	Memory	Widescreen display	CCFL or LED	Camera	Discrete graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	ENERGY STAR 5.0	Vista preload	Avail date
✂ 4186-5BU	T6500	2.10	4GB	15.6" WXGA	LED	Cam	GT130M	320GB ⁸	DVD±RW	* Intel 5100 ²⁸	Black		ES50	Prem 64	Aug 09
✂ 4186-7CU	P7350	2.00	6GB	15.6" WXGA	LED	Cam	GT130M	500GB	DVD±RW	✂ Intel 5100	Black		ES50	Prem 64	Aug 09
✂ 4186-5EU	P7350	2.00	6GB	15.6" WXGA	LED	Cam	GT130M	500GB	DVD±RW	✂ Intel 5100	Black		ES50	Prem 64	Aug 09
4186-4AU	P8600	2.40	4GB	15.6" WXGA	LED	Cam	GT130M	500GB	DVD±RW	✂ Intel 5100	Black	Blue	ES50	Prem 64	May 09
4186-42U	P8700	2.53	4GB	15.6" WXGA	LED	Cam	GT130M	500GB	DVD±RW	✂ Intel 5100	Black	Blue	ES50	Prem 64	May 09

- 15.6" widescreen, glossy display with LED backlight
- **Lenovo® Desktop Navigator** easily toggles between shortcuts, files, and other frequently used programs with touch-sensitive slide bar
- Integrated 1.3 megapixel camera and **Lenovo's VeriFace** face recognition software helps control access to your notebook by recognizing your face.
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- **Dolby® Home Theater** premium audio system with two stereo speakers and one subwoofer
- **Lenovo Rescue System** provides **OneKey™** recovery and **OneKey Antivirus** without booting into Windows
- **OneKey Theater** allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor T6500 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7350, P8600, or P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® Vista® Home Premium 64-bit ✧ Vista Premium logo
Memory	4GB or 6GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;	Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software
Diskette drive	None	Available at these retailers • lenovo.com
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7 mm high, tray-in	
SATA disk	320GB or 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable	
Widescreen display	15.6" (396.2mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator	
Discrete graphics	NVIDIA® GeForce® GT 130M , PCI Express® x16, 512MB memory, DirectX® 10, PureVideo® HD technology, CUDA® technology, VGA, HDMI, HDCP-compliant	90-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Keyboard	Full-size keyboard, 6-row, recovery key, mute, volume up, volume down button	
Touch controls	Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³	(WxDxH): 15.2" x 10.0" x 1.02" to 1.5"; 385mm x 255mm x 26mm to 37mm	
Weight ²	with optical drive and battery: 6-cell: 6.06 lb (2.75 kg)	Limited Warranty ¹² ✧ 1-year parts and labor ✧ Depot repair service ¹⁹ ✧ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ✧ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Case color	Black top, black bottom	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion 6-cell	
Battery - life ¹⁰	Up to 3.5 hr	
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)	
ExpressCard/34	One slot (ExpressCard/34)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Two USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR	
TV tuner	None	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator	
Modem	None	
Ethernet	Gigabit ethernet, Broadcom® BCM5784, PCIe x1	
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / two stereo speakers (2 watt) and subwoofer (2 watt), Dolby® Home Theater® Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm)	
Security	Hard disk password, user password, supervisor password, security lockhole	
Fingerprint reader	None	

See footnotes for important warranty information

✂ US models announced August 19, 2009

previous models on May 6, 2009

✂ US models withdrawn effective October 2009

* Intel Centrino® processor technology

✂ Intel Centrino 2 processor technology

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(BM2-2) August 2009

Type-model	Processor	GHz	Memory	Widescreen display	CCFL or LED	Camera	Discrete graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	ENERGY STAR 5.0	Win7 preload	Avail date
4186-5GU	P7450	2.13	4GB	15.6" WXGA	LED	1.3M	GT240M	320GB ⁸	DVD±RW	* Intel 5100 ²⁸	Black	None	ES50	Prem 64	Dec 09

- **15.6" widescreen, glossy display with LED backlight**
- **Lenovo® Desktop Navigator easily toggles between shortcuts, files, and other frequently used programs with touch-sensitive slide bar**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Dolby® Home Theater® premium audio system with two stereo speakers and one subwoofer**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor P7450 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64-bit
Memory	4GB std / 8GB max ⁷ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available	Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Media Show • Lenovo Desktop Navigator software
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7 mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable	90-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Widescreen display Camera	15.6" (396.2mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator	
Discrete graphics	NVIDIA® GeForce® GT 240M , PCI Express® x16, 1GB memory, DirectX® 10.1, PureVideo® HD technology, CUDA® technology, VGA, HDMI, HDCP-compliant	
Keyboard Touch controls Touch pad	Full-size keyboard, 6-row, recovery key, mute, volume up, volume down buttons Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 15.2" x 10.0" x 1.02" to 1.5"; 385mm x 255mm x 26mm to 37mm with optical drive and battery: 6-cell: 6.06 lb (2.75 kg) Black top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell Up to 3.5 hr	
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)	Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇨ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Two USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR	
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None Gigabit ethernet, Broadcom® BCM5784, PCIe x1 High Definition (HD) Audio, RealTek® ALC272 codec / two stereo speakers (2 watt) and subwoofer (2 watt), Dolby® Home Theater® Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack / SPDIF-out (stereo, 3.5 mm)	
Security Fingerprint reader	Hard disk password, user password, supervisor password, security lockhole None	

See footnotes for important warranty information
US model announced December 17, 2009

✧ Intel Centrino® 2 processor technology

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(BM2-4) December 2009

Type-model	Pro- cessor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Discrete graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue- tooth	Win7 preload	Avail date
3241-64U	i7-720QM	1.60	2.80	4GB	15.6" HD	LED	1.3M	GT240M	320GB ⁸	DVD±RW	Intel 5100 ²⁸	Black	Blue	Prem 64	Nov 09
3241-62U	i7-820QM	1.73	3.06	4GB	15.6" HD	LED	1.3M	GT240M	500GB	DVD±RW	Intel 5100	Black	Blue	Prem 64	Nov 09

- **15.6" HD widescreen, glossy display with LED backlight**
- **Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive slide bar**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Dolby® Home Theater® premium audio system with two stereo speakers and one subwoofer**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**


Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core , 2.5GT/s (giga-transfers/second) DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM</i> : 6MB cache; <i>i7-820QM</i> : 8MB cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64-bit Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • McAfee VirusScan® Plus 2009 (30 days of virus definitions) • Easy Capture • Adobe® Reader® • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software				
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available														
Diskette drive	None														
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7 mm high, tray-in														
SATA disk	320GB (5400 rpm) or 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable														
Widescreen display	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator														
Discrete graphics	NVIDIA® GeForce® GT 240M , PCI Express® x16, 1GB memory, DirectX® 10.1, PureVideo® HD technology, CUDA® technology, VGA, HDMI, HDCP-compliant														
Keyboard	Full-size keyboard, 6-row, recovery key, mute, volume up, volume down button														
Touch controls	Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key														
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch														
Dimensions ³	(WxDxH): 15.2" x 10.0" x 1.02" to 1.5"; 385mm x 255mm x 26mm to 37mm														
Weight ²	with optical drive and battery: <i>6-cell</i> : 6.06 lb (2.75 kg)														
Case color	Black top, black bottom														
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell														
Battery - life ¹⁰	Up to 3.5 hr														
Chipset	Mobile Intel PM55 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)														
Ports	Two USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR														
TV tuner	None														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface, LED indicator														
Modem	None														
Ethernet	Gigabit ethernet, Broadcom® 57780, PCIe x1														
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / two stereo speakers (2 watt) and subwoofer (2 watt), Dolby® Home Theater® Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm)														
Security	Hard disk password, user password, supervisor password, security lockhole														
Fingerprint reader	None														

See footnotes for important warranty information
US models announced November 3, 2009

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(BM3-1) November 2009

Limited Warranty¹²
 ➤ **1-year parts and labor**
 ➤ **Depot repair service**¹⁹
 ➤ **Service upgrade options**
 (in eligible locations):⁹
 • **1-year Onsite with accidental damage protection** 78Y1533
 • **3-year Lenovo Onsite Repair**¹³
9x5 Next Business Day 78Y1540
 • **3-year Lenovo Onsite Repair**¹³
9x5 Next Business Day with accidental damage protection 78Y1541
 ➤ **24x7¹⁶ toll-free support for warranty issues during the warranty period**¹²
 via 877-453-6686

- **15.6" HD widescreen, glossy display with LED backlight**
- **Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive slide bar**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Dolby® Home Theater® premium audio system with two stereo speakers and one subwoofer**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

See footnotes for important warranty information
 US model announced April 7, 2010; previous model on December 17, 2009

ideapad



Lenovo IdeaPad Y560



Lenovo IdeaPad Y560



Lenovo IdeaPad Y560



Lenovo IdeaPad Y560



Lenovo IdeaPad Y560



Lenovo IdeaPad Y560

Type-model	Pro- cessor	GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Switchable graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Blue- tooth	Win7 preload	Avail date
0646-26U	i5-520M	2.40	2.93	4GB	15.6" HD	LED	1.3M	Intel HD, HD 5730	500GB	DVD±RW	Intel 1000	Black	Blue	Prem 64	Mar 10
0646-27U	i5-430M	2.26	2.53	4GB	15.6" HD	LED	1.3M	Intel HD, HD 5730	500GB	DVD±RW	Intel 1000	Black	Blue	Prem 64	Mar 10
0646-28U	i3-330M	2.13		4GB	15.6" HD	LED	1.3M	Intel HD, HD 5730	320GB	DVD±RW	Intel 1000	Black	Blue	Prem 64	Mar 10

- 15.6" widescreen, glossy display with LED backlight
- Dynamic switching between discrete and integrated graphics (user selectable)
- Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive SlideNav bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two JBL® stereo speakers
- Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-330M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache Intel Core i5 processor i5-430M or i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • ooVoo™ • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live Essential • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo DirectShare • Lenovo SlideNav				
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available														
Diskette drive	None														
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in														
SATA disk	320GB (5400 rpm), 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high														
Widescreen display	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator														
Switchable graphics	Switches between discrete and integrated graphics via graphic switch Intel HD Graphics in processor, and ATI™ Mobility Radeon™ HD 5730 , PCI Express® x16, 1GB memory, DirectX® 11, ATI Avivo™ HD, VGA connector, HDMI connector, HDCP-compliant														
Keyboard	Full-size keyboard, 6-row, recovery key, mute, volume up, volume down buttons														
Touch controls	Lenovo SlideNav bar, OneKey Theater and Energy Management keys														
Light sensor	Ambient light sensor														
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch														
Dimensions ³	(WxDxH): 15.2" x 10.0" x 0.8" to 1.3"; 385mm x 255mm x 20mm to 33mm														
Weight ²	with optical drive and battery: 6-cell: 5.95lb (2.7 kg)														
Case color	Black top with engraved pattern, black bottom														
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell														
Battery - life ¹⁰	Up to 3.5 hr														
Chipset	Mobile Intel HM55 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)														
Ports	Three USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)														
TV tuner	None														
PCIe Mini Card	Three PCIe Mini Card slots														
Intel 1000	11b/g/n wireless*, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2														
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface, LED indicator														
Modem	None														
Ethernet	Gigabit ethernet, Broadcom® BCM57780, PCIe x1														
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / JBL® stereo speakers (1.5 watt x 2), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (S/PDIF-out) (stereo, 3.5 mm)														
Security	Power-on password, hard disk password, supervisor password, security lockhole														
Fingerprint reader	None														

See footnotes for important warranty information
US models announced February 16, 2010

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(HW11-1) March 2010

Type-model	Pro- cessor	GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Switchable graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Blue- tooth	Win7 preload	Avail date	
0646-23U	i3-330M	2.13		4GB	15.6" HD	LED	1.3M	Intel HD	5730	500GB ⁸	DVD±RW	Intel 1000	Black	None	Prem 64	Mar 10
0646-22U	i5-430M	2.26	2.53	4GB	15.6" HD	LED	1.3M	Intel HD	5730	500GB	DVD±RW	Intel 1000	Black	None	Prem 64	Mar 10

- 15.6" widescreen, glossy display with LED backlight
- Dynamic switching between discrete and integrated graphics (user selectable)
- Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive SlideNav bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two JBL® stereo speakers
- Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache or Intel Core i5 processor i5-430M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• ooVoo™• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live Essential• CyberLink YouCam• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Media Show• Lenovo DirectShare• Lenovo SlideNav	
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		90-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant	
Diskette drive	None			
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in			
SATA disk	500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high			
Widescreen display	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator			
Switchable graphics	Switches between discrete and integrated graphics via graphic switch Intel HD Graphics in processor, and ATI™ Mobility Radeon™ HD 5730 , PCI Express® x16, 1GB memory, DirectX® 11, ATI Avivo™ HD, VGA connector, HDMI connector, HDCP-compliant			
Keyboard	Full-size keyboard, 6-row, recovery key, mute, volume up, volume down buttons			
Touch controls	Lenovo SlideNav bar, OneKey Theater and Energy Management keys			
Light sensor	Ambient light sensor			
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		90-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant	
Dimensions ³	(WxDxH): 15.2" x 10.0" x 0.8" to 1.3"; 385mm x 255mm x 20mm to 33mm			
Weight ²	with optical drive and battery: <i>6-cell</i> : 5.95 lb (2.7 kg)			
Case color	Black top with engraved pattern, black bottom			
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic			
Battery - type	Lithium Ion 6-cell			
Battery - life ¹⁰	Up to 3.5 hr			
Chipset	Mobile Intel HM55 Express Chipset			
ExpressCard/34	One slot (ExpressCard/34)			
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)			
Ports	Three USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		<div>Limited Warranty¹²</div> <div>⇨ 1-year parts and labor</div> <div>⇨ Depot repair service¹⁹</div> <div>⇨ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 1-year Lenovo Onsite Repair¹³ 78Y1532• 1-year Onsite with accidental damage protection 78Y1533• 2-year Lenovo Onsite Repair¹³ 78Y1536• 3-year Lenovo Depot Repair 78Y1538</div> <div>⇨ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686</div>	
TV tuner	None			
PCIe Mini Card	Three PCIe Mini Card slots			
Intel 1000	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2			
Bluetooth™	None			
Modem	None			
Ethernet	Gigabit ethernet, Broadcom® BCM57780, PCIe x1			
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / JBL® stereo speakers (1.5 watt x 2), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (S/PDIF-out) (stereo, 3.5 mm)			
Security	Power-on password, hard disk password, supervisor password, security lockhole			
Fingerprint reader	None			

See footnotes for important warranty information
 US models announced March 11, 2010

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IdeaPad™ Y560 (0646) - ATI (Windows 7) - web models

Personal Systems Reference (PSREF)

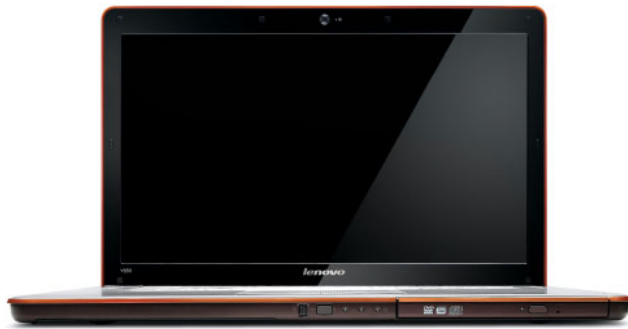
Type-model	Pro- cessor	GHz	Max turbo (GHz)	Memory (MHz)	Widescreen display	CCFL or LED	Cam- era	Discrete graphics	SATA disk GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	Top color	Blue- tooth	Win7 preload	Avail date
0646-2AU	i7-720QM	1.60	2.80	4GB 1333	15.6" HD	LED	1.3M	HD 5730	500GB 7200	DVD±RW	Intel 1000	Black	Blue	Prem 64	Mar 10

- 15.6" widescreen, glossy display with LED backlight
- Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive SlideNav bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two JBL® stereo speakers
- Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i7 processor i7-720QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology, 6MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none"> • Lenovo OneKey Recovery • Lenovo ReadyComm • ooVoo™ • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live Essential • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo DirectShare • Lenovo SlideNav
Memory	4GB std / 8GB max ⁷ ; PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available	
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 500GB (7200 rpm) / SATA 3.0Gb/s, 9.5mm high	
Widescreen display Camera	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator	
Discrete graphics	ATI™ Mobility Radeon™ HD 5730 , PCI Express® x16, 1GB memory, DirectX® 11, ATI Avivo™ HD, VGA connector, HDMI connector, HDCP-compliant	
Keyboard Touch controls Light sensor Touch pad	Full-size keyboard, 6-row, recovery key, mute, volume up, volume down buttons Lenovo SlideNav bar, OneKey Theater and Energy Management keys Ambient light sensor Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	120-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant <div>Limited Warranty¹²</div> <div> <div> <div>⇒ 1-year parts and labor</div> <div>⇒ Depot repair service¹⁹</div> <div>⇒ Service upgrade options (in eligible locations):⁹</div> </div> <div> <ul style="list-style-type: none"> • 1-year Lenovo Onsite Repair¹³ 78Y1532 • 1-year Onsite with accidental damage protection 78Y1533 • 2-year Lenovo Onsite Repair¹³ 78Y1536 • 3-year Lenovo Depot Repair 78Y1538 </div> <div> ⇒ 24x¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686 </div> </div>
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 15.2" x 10.0" x 0.8" to 1.3"; 385mm x 255mm x 20mm to 33mm with optical drive and battery: 6-cell: 5.95lb (2.7 kg) Black top with engraved pattern, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell Up to 3 hr	
Chipset ExpressCard/34 Multicard reader	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™) Three USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
Ports		
TV tuner PCIe Mini Card Intel 1000 Bluetooth™ Modem Ethernet Audio support	None Three PCIe Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Bluetooth 2.1 wireless + EDR, USB 2.0 interface, LED indicator None Gigabit ethernet, Broadcom® BCM57780, PCIe x1 High Definition (HD) Audio, RealTek® ALC272 codec / JBL® stereo speakers (1.5 watt x 2), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (S/PDIF-out) (stereo, 3.5 mm) Power-on password, hard disk password, supervisor password,, security lockhole	
Security Fingerprint reader	None	

See footnotes for important warranty information
US model announced February 16, 2010

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(HWI1-2) March 2010



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650

- **16.0" widescreen, glossy display with LED backlight**
- **Lenovo® Desktop Navigator easily toggles between shortcuts, files, and other frequently used programs with touch-sensitive slide bar**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Dolby® Home Theater® premium audio system with two JBL® stereo speakers**
- **Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

See footnotes for important warranty information ❖ Intel Centrino® 2 processor technology
 ☞ US model announced May 27, 2009; previous models on April 7, 2009

Type-model	Pro- cessor	GHz	Memory	Widescreen display	CCFL or LED	Cam- era	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue- tooth	ENERGY STAR 5.0	Vista preload	Avail date
4185-36U	P8600	2.40	3GB	16.0" WXGA	LED	Cam	GMA	320GB ⁸	DVD±RW	Intel 5100 ²⁸	Black	Blue	ES50	Prem 32	Feb 09
4185-56U	P8700	2.53	4GB	16.0" WXGA	CCFL	Cam	GMA	320GB	DVD±RW	Intel 5100	Black		ES50	Prem 64	Aug 09
4185-55U	P8700	2.53	4GB	16.0" WXGA	CCFL	Cam	GMA	320GB	DVD±RW	Intel 5100	Black		ES50	Prem 64	Aug 09
4185-75U	P8700	2.53	4GB	16.0" WXGA	CCFL	Cam	GMA	320GB	DVD±RW	Intel 5100	Black		ES50	Prem 64	Aug 09

- **16.0" widescreen, glossy display**
- **Lenovo® Desktop Navigator easily toggles between shortcuts, files, and other frequently used programs with touch-sensitive slide bar**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Dolby® Home Theater® premium audio system with two JBL® stereo speakers**
- **Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor P8600 or P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system²⁰ - Some: Genuine Windows® Vista® Home Premium 32 - Some: Genuine Windows Vista Home Premium 64 ✦ Vista Premium logo
Memory	3GB or 4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;	Preloaded applications¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable	Available at these retailers • lenovo.com
Widescreen display	16.0" (406.4mm) WXGA (1366x768) TFT color, VibrantView (glossy); <i>Some:</i> LED backlight , 300 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> CCFL backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator	65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Camera	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content	Limited Warranty¹² ➤ 1-year parts and labor ➤ Depot repair service¹⁹ ➤ Service upgrade options (in eligible locations):⁹ <ul style="list-style-type: none"> • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Keyboard	Full-size keyboard, 6-row, 84-key, recovery key, mute, vol up, vol down button	
Touch controls	Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key	
Light sensor	Ambient light sensor	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 15.4" x 10.2" x 1.0" to 1.2"; 390mm x 260mm x 26 to 30mm with optical drive and battery: 6-cell: 5.62 lb (2.55 kg) Black top, black bottom Top: carbon fiber reinforced plastic; Bottom: magnesium-aluminum alloy Lithium Ion 6-cell Up to 3.5 hr	
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)	
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Two USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, eSATA port	
TV tuner	None	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator	
Modem	None	
Ethernet	Gigabit ethernet, Broadcom® BCM5784, PCIe x1	
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / two JBL stereo speakers (2 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm)	
Security	Hard disk password, user password, supervisor password, security lockhole	
Fingerprint reader	None	

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

✦ US models announced August 19, 2009; previous models on February 24 or August 5, 2009

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(BM1-1) August 2009

IdeaPad™ Y650 (4185) - GMA (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Pro- cessor	GHz	Memory	Widescreen display	CCFL or LED	Cam- era	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue- tooth	Win7 preload	Avail date
4185-57U	P8700	2.53	4GB	16.0" HD	CCFL	1.3M	GMA 4500MHD	500GB ⁸	DVD±RW	✚ Intel 5100 ²⁸	Black	None	Prem 64	Nov 09

- **16.0" widescreen, glossy display**
- **Lenovo® Desktop Navigator easily toggles among shortcuts, files, and other frequently used programs with touch-sensitive slide bar**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Dolby® Home Theater® premium audio system with two JBL® stereo speakers**
- **Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • McAfee® VirusScan® Plus 2009 (30 days of virus definitions) • Adobe® Reader® • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable		
Widescreen display Camera	16.0" (406.4mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); CCFL backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content		
Keyboard Touch controls Light sensor Touch pad	Full-size keyboard, 6-row, 84-key, recovery key, mute, vol up, vol down button Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key Ambient light sensor Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 15.4" x 10.2" x 1.0" to 1.2"; 390mm x 260mm x 26 to 30mm with optical drive and battery: <i>6-cell</i> : 5.62 lb (2.55 kg) Black top, black bottom <i>Top</i> : carbon fiber reinforced plastic; <i>Bottom</i> : magnesium-aluminum alloy Lithium Ion 6-cell Up to 3.5 hr		
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)		
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Two USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, eSATA port		
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None Gigabit ethernet, Broadcom® BCM5784, PCIe x1 High Definition (HD) Audio, RealTek® ALC272 codec / two JBL stereo speakers (2 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm) Hard disk password, user password, supervisor password, security lockhole		Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Security Fingerprint reader	None		

See footnotes for important warranty information
US model announced November 3, 2009

✚ Intel Centrino® 2 processor technology

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(BM1-4) November 2009

Type-model	Processor	GHz	Memory	Widescreen display	CCFL or LED	Camera	Discrete graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Vista preload	Avail date
4185-37U	P8600	2.40	3GB	16.0" WXGA	LED	Cam	G105M	320GB ⁸	DVD±RW	✦ Intel 5100 ²⁸	Black	Blue	Prem 64	Feb 09
4185-34U	P8700	2.53	4GB	16.0" WXGA	LED	Cam	G105M	320GB	DVD±RW	✦ Intel 5100	Black	Blue	Prem 64	Feb 09

- 16.0" widescreen, glossy display with LED backlight
- Lenovo® Desktop Navigator easily toggles between shortcuts, files, and other frequently used programs with touch-sensitive slide bar
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.
- Touch pad supports multi-touch function (pinch, expansion, chiral motion)
- Dolby® Home Theater® premium audio system with two JBL® stereo speakers
- Ambient Light Sensor automatically adjusts screen brightness based on surrounding light conditions
- Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows
- OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor P8600 or P8700 with dual-core , Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® Vista® Home Premium 64 ✦ Vista Premium logo Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Easy Capture • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software
Memory	3GB or 4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable		
Widescreen display Camera	16.0" (406.4mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 300 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Discrete graphics	NVIDIA® GeForce® G105M , PCI Express® x16, 256MB memory, DirectX® 10, PureVideo® HD technology, VGA, HDMI, HDCP-compliant		Available at these retailers • lenovo.com 90-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Keyboard Touch controls Light sensor Touch pad	Full-size keyboard, 6-row, 84-key, recovery key, mute, vol up, vol down button Lenovo Desktop Navigator, OneKey Theater, and Dolby control center key Ambient light sensor Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 15.4" x 10.2" x 1.0"; 390mm x 260mm x 26mm with optical drive and battery: 6-cell: 5.62 lb (2.55 kg) Black top with engraved pattern, black bottom <i>Top:</i> carbon fiber reinforced plastic; <i>Bottom:</i> magnesium-aluminum alloy Lithium Ion 6-cell Up to 2.5 hr		
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)		
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Two USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, eSATA port		
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator None Gigabit ethernet, Broadcom® BCM5784, PCIe x1 High Definition (HD) Audio, RealTek® ALC272 codec / two JBL® stereo speakers (2 watt), Dolby® Home Theater™ Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm) Hard disk password, user password, supervisor password, security lockhole		
Security Fingerprint reader	None		

See footnotes for important warranty information
US models announced February 24, 2009

✦ Intel Centrino® 2 processor technology

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(BM1-2) February 2009



Lenovo IdeaPad Y730
Valencia Orange



Lenovo IdeaPad Y730
Valencia Orange



Lenovo IdeaPad Y730



Lenovo IdeaPad Y730
Dark Blue, Glossy Finish



Lenovo IdeaPad Y730
Valencia Orange



Lenovo IdeaPad Y730
Valencia Orange

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk(s)	SATA optical	Mini PCIe 802.11 wireless	Top color	Bluetooth	Keypad / Game Zone	Vista preload	Avail date
4053-2DU	T3200	2.00	2GB	17.0" WXGA+	Cam	GMA	1 x 160GB ⁸	DVD±RW	Intel 5100 ²⁸	Blue	None	Keypad	Prem 32	Sep 08
<ul style="list-style-type: none">• 17.0" widescreen, glossy display• Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.• Dolby[®] Home Theater™ premium audio system with four speakers and one subwoofer• HDMI port, HDCP-compliant• Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows														

See footnotes for important warranty information
 US model announced September 16, 2008

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 (MB2-2) September 2008

Part number	Processor	GHz	Memory	Widescreen display	Camera	Discrete graphics	SATA disk(s)	SATA optical	Mini PCIe 802.11 wireless	Top color	Keypad / Game Zone	ENERGY STAR 5.0	Vista preload	Avail date
59016615	T3200	2.00	2GB	17.0" WXGA+	Cam	HD 3650	1 x 250GB ⁸	DVD±RW	Intel 5100 ²⁸	Blue	Keypad	None	Prem 32	Nov 08
59016609	T3200	2.00	3GB	17.0" WXGA+	Cam	HD 3650	1 x 160GB	DVD±RW	Intel 5100	Blue	Keypad	None	Prem 32	Nov 08
59016799	T3200	2.00	3GB	17.0" WXGA+	Cam	HD 3650	1 x 160GB	DVD±RW	Intel 5100	Blue	Keypad	None	Prem 32	Nov 08
59016821	T5800	2.00	4GB	17.0" WXGA+	Cam	HD 3650	1 x 250GB	DVD±RW *	Intel 5100	Blue	Keypad	None	Prem 64	Nov 08
59016620	T5800	2.00	4GB	17.0" WXGA+	Cam	HD 3650	1 x 250GB	DVD±RW *	Intel 5100	Blue	Keypad	None	Prem 64	Dec 08
59016437	P8400	2.26	4GB	17.0" WXGA+	Cam	HD 3650	1 x 320GB	DVD±RW ↗	Intel 5100	Blue	Keypad	None	Prem 64	Oct 08

- 17.0" widescreen, glossy display
- Halo lighting that changes color based on processor speed or customer preferences
- Dark blue color with glossy piano finish
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.
- Dolby® Home Theater™ premium audio system with four speakers and one subwoofer
- Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows

Processor	Intel® Pentium® processor T3200 with dual-core, 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5800 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8400 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ <ul style="list-style-type: none">- Some: Genuine Windows® Vista® Home Premium 32- Some: Genuine Windows Vista Home Premium 64 ✧ Vista Premium logo
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in		
Primary SATA disk	160 (5400 rpm), 250 (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable		
Second SATA disk	None		
Disk bays	Two internal disk bays, 9.5mm high		
Widescreen display	17.0" (431.8mm) WXGA+ (1440x900) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, frameless screen		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Discrete graphics	ATI™ Mobility Radeon™ HD 3650, PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD, VGA connector (with VGA-in support), HDMI connector, HDCP-compliant		
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys		
Numeric keypad	Numeric keypad on right of keyboard		
Multimedia controls	Touch-sensitive audio-video control panel, Shuttle Key		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	(WxDxH): 15.5" x 11.2" x 1.22" to 1.53"; 395mm x 285mm x 31 to 39mm		Available at these retailers <ul style="list-style-type: none">• B&H™• J&R™• TigerDirect• Supercom (Canada)
Weight ²	with optical drive and battery: 7.9 lb (3.6 kg)		
Case color	<i>Top:</i> dark blue, glossy finish; <i>Bottom:</i> black		
Case material	ABS plastic		
Battery - type	Lithium Ion 6-cell, 5200 mAh, smart battery, 5-bar battery indicator		
Battery - life ¹⁰	Up to 3.5 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Four USB 2.0, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
TV tuner	None		135-watt AC adapter Wireless on/off switch VGA in/out switch RoHS-compliant
Mini PCI Express	Three Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator		
Modem	56K V.92 ⁵ modem		
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3		
Audio support	Intel High Definition (HD) Audio, RealTek® ALC888S codec / two main speakers (2 watt), two secondary speakers (1.5 watt) and subwoofer (3 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Fingerprint reader	None		

See footnotes for important warranty information

 Ⓢ US model announced December 10, 2008;
 previous models on October 22 or November 12, 2008

* Intel Centrino® processor technology

↗ Intel Centrino 2 processor technology

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Type-model	Proc- essor	GHz	Memory	Widescreen display	Discrete graphics	VGA-in	SATA disk(s)	SATA optical	Mini PCIe 802.11 wireless	Top color	Keypad / Game Zone	ENERGY STAR 5.0	Vista preload	Avail date
4053-2FU	T5800	2.00	2GB	17.0" WXGA+	HD 3650	VGA-in	1 x 320GB ⁸	DVD±RW	Intel 5100 ²⁸	Blue	Keypad		Prem 32	Sep 08
4053-2GU	T5800	2.00	3GB	17.0" WXGA+	HD 3650	VGA-in	1 x 320GB	DVD±RW	Intel 5100	Blue	Keypad		Prem 32	Sep 08
4053-2CU	P7350	2.00	3GB	17.0" WXGA+	HD 3650	VGA-in	1 x 320GB	DVD±RW	Intel 5100	Blue	Keypad	ES50	Prem 64	Aug 08
4053-2BU	P8400	2.26	3GB	17.0" WXGA+	HD 3650	VGA-in	1 x 320GB	DVD±RW	Intel 5100	Blue	Keypad	ES50	Prem 64	Aug 08
4053-2AU	P8400	2.26	4GB	17.0" WUXGA	HD 3650		1 x 320GB	DVD±RW	Intel 5100	Orange	Game	ES50	Prem 64	Aug 08
4053-2EU	X9100	3.06	4GB	17.0" WUXGA	HD 3650		2 x 320GB	Blu-ray	Intel 5100	Orange	Game		Prem 64	Sep 08

- 17.0" widescreen, glossy display
- Halo lighting that changes color based on processor speed or customer preferences
- Dark blue or valencia orange color with glossy piano finish
- Game Zone with secondary display, user-defined keys, performance control switch and enlarged direction keys on select models
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.
- Dolby® Home Theater™ premium audio system with four speakers and one subwoofer
- Hot-swap secondary disk capability on select models
- Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows

Processor	Intel® Core™ 2 Duo processor T5800 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7350 or P8400 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows® Vista® Home Premium 32 - Some: Genuine Windows Vista Home Premium 64 ◇ Vista Premium logo
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available	Preloaded applications ¹⁴ • Lenovo® OneKey Recovery • Lenovo ReadyComm • Lenovo Idea Central (Premium 64-bit models only) • Lenovo Idea Notes (Premium 64-bit models only) • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft® Office 2007 Trial (60-day) • Napster™ To Go® (Premium 32-bit models only) • WildGames™ • Carbonite Online Backup • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW, Blu-ray)
SATA DVD±RW SATA Blu-ray™	Some: DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in Some: Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD recordable, not removable, 12.7mm high, tray-in	
Primary SATA disk	320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable	
Second SATA disk	Some: 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable, hot-swap support, external support via USB cable	
Disk bays	Two internal disk bays, 9.5mm high	
Widescreen display	Some: 17.0" (431.8mm) WXGA+ (1440x900) TFT color, 200 nits Some: 17.0" (431.8mm) WUXGA (1920x1200) TFT color, 300 nits All: VibrantView (glossy), 16:10 aspect ratio, 500:1 contrast, frameless screen	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Discrete graphics	ATI™ Mobility Radeon™ HD 3650, PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD, VGA connector (with VGA-in support on some models), HDMI connector, HDCP-compliant	
Keyboard Numeric keypad Game Zone	Full-size keyboard, 6-row, 84-key, multimedia Fn keys Some: Numeric keypad on right of keyboard Some: Secondary display, user-defined keys, performance switch, enlarged direction keys	
Multimedia controls Touch pad	Touch-sensitive audio-video control panel, Shuttle Key Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 15.5" x 11.2" x 1.22" to 1.53"; 395mm x 285mm x 31 to 39mm with optical drive and battery: 7.9 lb (3.6 kg) Top: dark blue or valencia orange, glossy finish; Bottom: black ABS plastic Lithium Ion 6-cell, 5200 mAh, smart battery, 5-bar battery indicator Up to 3.5 hr	Available at these retailers • lenovo.com
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express 1.1, PCI 2.3, ethernet MAC)	135-watt AC adapter Wireless on/off switch Some: VGA in/out switch RoHS-compliant
ExpressCard/54 Multicard reader	One ExpressCard/34 or ExpressCard/54 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	Limited Warranty¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇨ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Ports	Four USB 2.0, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
TV tuner	None	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator 56K V.92 ⁶ modem 10/100 ethernet, Broadcom® BCM5906M, PCI 2.3 Intel High Definition (HD) Audio, RealTek® ALC888S codec / two main speakers (2 watt), two secondary speakers (1.5 watt) and subwoofer (3 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None	

See footnotes for important warranty information
 ‡ US models announced September 16, 2008;
 previous models on August 19, 2008

* Intel Centrino® processor technology
 ‡ Intel Centrino 2 processor technology

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 (MB2-1) December 2009

	Type-model	Proc- essor	GHz	Memory	Widescreen display	Discrete graphics	VGA-in	SATA disk(s)	SATA optical	Mini PCIe 802.11 wireless	Top color	Keypad / Game Zone	ENERGY STAR 5.0	Vista preload	Avail date
X	4053-2MU	T6400	2.00	2GB	17.0" WXGA+	HD 3650		1 x 320GB ⁸	DVD±RW	* Intel 5100 ²⁸	Blue	Keypad	None	Prem 32	Mar 09
	4053-2NU	T6400	2.00	3GB	17.0" WXGA+	HD 3650		1 x 320GB	DVD±RW	* Intel 5100	Blue	Keypad	None	Prem 32	Apr 09
	4053-33U	P7350	2.00	4GB	17.0" WUXGA	HD 3650		1 x 320GB	DVD±RW	✧ Intel 5100	Orange	Game	None	Prem 64	Nov 08
	4053-2LU	P7450	2.13	3GB	17.0" WXGA+	HD 3650		1 x 320GB	DVD±RW	✧ Intel 5100	Blue	Keypad	None	Prem 64	Mar 09
	4053-35U	P8400	2.26	4GB	17.0" WXGA+	HD 3650	VGA-in	1 x 320GB	DVD±RW	✧ Intel 5100	Blue	Keypad	None	Prem 64	Nov 08
E	4053-32U	P8600	2.40	3GB	17.0" WUXGA	HD 3650		1 x 320GB	DVD±RW	✧ Intel 5100	Orange	Game	None	Prem 32	Nov 08
	4053-2QU	P8600	2.40	4GB	17.0" WXGA+	HD 3650		1 x 320GB	DVD±RW	✧ Intel 5100	Blue	Keypad	None	Prem 64	May 09
	4053-2HU	P8600	2.40	4GB	17.0" WUXGA	HD 3650		1 x 320GB	DVD±RW	✧ Intel 5100	Orange	Game	None	Prem 64	Mar 09
	4053-2JU	P8600	2.40	4GB	17.0" WUXGA	HD 3650		1 x 320GB	DVD±RW	✧ Intel 5100	Orange	Game	None	Prem 64	Apr 09
	4053-34U	T9400	2.53	4GB	17.0" WUXGA	HD 3650		2 x 320GB	Blu-ray	✧ Intel 5100	Orange	Game	None	Prem 64	Nov 08
<ul style="list-style-type: none">• 17.0" widescreen, glossy display• Halo lighting that changes color based on processor speed or customer preferences• Game Zone with secondary display, user-defined keys, performance control switch and enlarged direction keys on select models• Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.• Dolby® Home Theater™ premium audio system with four speakers and one subwoofer• Hot-swap secondary disk capability on select models• Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows															
Processor		Intel® Core™ 2 Duo processor T6400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7350, P7450, P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P7350/P7450/P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache										Preloaded operating system²⁰ <ul style="list-style-type: none">- Some: Genuine Windows® Vista® Home Premium 32- Some: Genuine Windows Vista Home Premium 64 ✧ Vista Premium logo			
Memory		2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available										Preloaded applications¹⁴ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Lenovo ReadyComm• Lenovo Idea Central (Premium 64-bit models only)• Lenovo Idea Notes (Premium 64-bit models only)• Norton Internet Security™ (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• Microsoft® Office 2007 Trial (60-day)• Napster™ To Go® (Premium 32-bit models only)• WildGames™• Carbonite Online Backup• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW, Blu-ray)			
SATA DVD±RW		Some: DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in										Available at these retailers <ul style="list-style-type: none">• lenovo.com			
SATA Blu-ray™		Some: Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD recordable, not removable, 12.7mm high, tray-in													
Primary SATA disk		320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable													
Second SATA disk		Some: 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable, hot-swap support, external support via USB cable													
Disk bays		Two internal disk bays, 9.5mm high													
Widescreen display		Some: 17.0" (431.8mm) WXGA+ (1440x900) TFT color, 200 nits Some: 17.0" (431.8mm) WUXGA (1920x1200) TFT color, 300 nits All: VibrantView (glossy), 16:10 aspect ratio, 500:1 contrast ratio													
Camera		Camera on top of screen, 1.3-megapixel, fixed focus													
Discrete graphics		ATI™ Mobility Radeon™ HD 3650, PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD, VGA connector (with VGA-in support on some models), HDMI connector, HDCP-compliant													
Keyboard		Full-size keyboard, 6-row, 84-key, multimedia Fn keys													
Numeric keypad		Some: Numeric keypad on right of keyboard													
Game Zone		Some: Secondary display, user-defined keys, performance switch, enlarged direction keys													
Multimedia controls		Touch-sensitive audio-video control panel, Shuttle Key													
Touch pad		Two-button touch pad with scroll feature (no TrackPoint®)													
Dimensions ³		(WxDxH): 15.5" x 11.2" x 1.22" to 1.53"; 395mm x 285mm x 31 to 39mm													
Weight ²		with optical drive and battery: 7.9 lb (3.6 kg)													
Case color		Top: dark blue or valencia orange, glossy finish; Bottom: black													
Case material		ABS plastic													
Battery - type		Lithium Ion 6-cell, 5200 mAh, smart battery, 5-bar battery indicator													
Battery - life ¹⁰		Up to 3.5 hr													
Chipset		Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express 1.1, PCI 2.3, ethernet MAC)													
ExpressCard/54		One slot (ExpressCard/34, ExpressCard/54)													
Multicard reader		6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)													
Ports		Four USB 2.0, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
TV tuner		None													
Mini PCI Express		Three Mini PCI Express slots													
Intel 5100 ²⁸		11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
Bluetooth™		Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator													
Modem		56K V.92 ⁶ modem													
Ethernet		10/100 ethernet, Broadcom® BCM5906M, PCI 2.3													
Audio support		Intel High Definition (HD) Audio, RealTek® ALC888S codec / two main speakers (2 watt), two secondary speakers (1.5 watt) and subwoofer (3 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)													
Security		Power-on password, hard disk password, supervisor password, security keyhole													
Fingerprint reader		None													

See footnotes for important warranty information

✱ Intel Centrino® processor technology

✱ US model announced May 6, 2009

✱ Intel Centrino 2 processor technology

previous models on November 12, 2008 or March 17 or April 22, 2009

✱ US models withdrawn effective October 2009

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ideapad



Lenovo IdeaPad Z460



Lenovo IdeaPad Z460



Lenovo IdeaPad Z460



Lenovo IdeaPad Z560



Lenovo IdeaPad Z560



Lenovo IdeaPad Z460

Type-model	Pro- cessor	GHz	Memory	Widescreen display	CCFL or LED	Cam- era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Bluetooth	Win7 preload	Avail date
0913-32U	i3-330M	2.13	3GB	14.0" WXGA	LED	0.3M	Intel HD	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	None	Prem 32	May 10
<ul style="list-style-type: none">• 14.0" widescreen, glossy display with LED backlight• Integrated camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face• Dolby® Advanced Audio™ certified audio system• Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows• OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode														
Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-330M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 32			
Memory	3GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• ooVoo™• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live Essential• CyberLink YouCam• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Lenovo DirectShare			
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high										65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant			
Widescreen display Camera	14.0" (355.6mm) HD (WXGA1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, LED indicator													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI, HDCP-compliant													
Keyboard Touch controls	Full-size keyboard, 6-row, recovery button Touch-sensitive buttons for mute, OneKey Theater, Smart noise control, and Energy Management													
Light sensor Touch pad	None Two-button touch pad with scroll feature (no TrackPoint®)													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 13.4" x 9.1" x 0.7" to 1.4"; 340mm x 231.8mm x 17.2mm to 34.4mm with optical drive and battery: <i>6-cell</i> : 4.85 lb (2.2 kg) Black top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell Up to 4 hr										Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 1-year Lenovo Onsite Repair¹³ 78Y1532• 1-year Onsite with accidental damage protection 78Y1533• 2-year Lenovo Onsite Repair¹³ 78Y1536• 3-year Lenovo Depot Repair 78Y1538 ⇨ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686			
Chipset ExpressCard/34 Multicard reader	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)													
Ports	Two USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)													
TV tuner PCIe Mini Card 11b/g/n ²⁸ Bluetooth™ Modem Ethernet Audio support	None Two PCIe Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Broadcom® chip or Atheros chip None None 10/100M ethernet, Realtek® RTL8103EL High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2), Dolby Advanced Audio certification / microphone, microphone input jack (3.5 mm), headphone jack (stereo, 3.5 mm)													
Security Fingerprint reader	User password, hard disk password, supervisor password, security lockhole None													

See footnotes for important warranty information
 US model announced May 12, 2010

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Type-model	Pro-cessor	GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam-era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Blue-tooth	Win7 preload	Avail date
0914-32U	i3-330M	2.13		3GB	15.6" WXGA	LED	0.3M	Intel HD	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	None	Prem 64	May 10
0914-38U	i3-350M	2.26		4GB	15.6" WXGA	LED	1.3M	Intel HD	320GB	DVD±RW	11b/g/n	Black	None	Prem 64	May 10
0914-37U	i5-450M	2.40	2.93	4GB	15.6" WXGA	LED	1.3M	Intel HD	320GB	DVD±RW	11b/g/n	Black	None	Prem 64	May 10

- **15.6" widescreen, glossy display with LED backlight**
- **Integrated camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Advanced Audio™ certified audio system**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-330M or i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache or Intel Core i5 processor i5-450M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • ooVoo™ • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live Essential • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Lenovo DirectShare	
Memory	3GB or 4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant	
Diskette drive	None			
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in			
SATA disk	320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high			
Widescreen display	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	Camera on top of screen, 0.3-megapixel or 1.3-megapixel, fixed focus, LED indicator			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI, HDCP-compliant			
Keyboard	Full-size keyboard, 6-row, recovery button			
Numeric keypad	Numeric keypad on right of keyboard			
Touch controls	Touch-sensitive buttons for mute, OneKey Theater, Smart noise control, and Energy Management			
Light sensor	None		78Y1532 • 1-year Onsite with accidental damage protection 78Y1533 • 2-year Lenovo Onsite Repair ¹³ 78Y1536 • 3-year Lenovo Depot Repair 78Y1538 ⇒ 24x ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)			
Dimensions ³	(WxDxH): 14.8" x 9.8" x 0.7" to 1.4"; 376.8mm x 249.8mm x 17.3mm to 34.9mm			
Weight ²	with optical drive and battery: <i>6-cell</i> : 5.73 lb (2.6 kg)			
Case color	Black top, black bottom			
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic			
Battery - type	Lithium Ion 6-cell			
Battery - life ¹⁰	Up to 4 hr			
Chipset	Mobile Intel HM55 Express Chipset			
ExpressCard/34	One slot (ExpressCard/34)			
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)			
Ports	Two USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
TV tuner	None			
PCIe Mini Card	Two PCIe Mini Card slots			
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Half Mini Card, Broadcom® chip or Atheros chip			
Bluetooth™	None			
Modem	None			
Ethernet	10/100M ethernet, Realtek® RTL8103EL			
Audio support	High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2), Dolby Advanced Audio certification / microphone, microphone input jack (3.5 mm), headphone jack (stereo, 3.5 mm)			
Security	User password, hard disk password, supervisor password, security lockhole			
Fingerprint reader	None			

See footnotes for important warranty information
 US models announced May 12, 2010

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Limited Warranty¹²

- ⇒ **1-year parts and labor**
- ⇒ **Depot repair service¹⁹**
- ⇒ **Service upgrade options (in eligible locations):⁹**
 - **1-year Lenovo Onsite Repair¹³** 78Y1532
 - **1-year Onsite with accidental damage protection** 78Y1533
 - **2-year Lenovo Onsite Repair¹³** 78Y1536
 - **3-year Lenovo Depot Repair** 78Y1538
- ⇒ **24x¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686**

Type-model	Pro-cessor	GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam-era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Blue-tooth	Win7 preload	Avail date
0914-3AU	i3-350M	2.26		3GB	15.6" WXGA	LED	1.3M	Intel HD	500GB ⁸	DVD±RW	11b/g/n ²⁸	Black	Blue	Prem 64	May 10
0914-3DU	i3-350M	2.26		3GB	15.6" WXGA	LED	1.3M	Intel HD	320GB	DVD±RW	11b/g/n	Black	Blue	Prem 64	May 10
0914-3EU	i5-450M	2.40	2.93	4GB	15.6" WXGA	LED	1.3M	Intel HD	500GB	DVD±RW	11b/g/n	Black	Blue	Prem 64	May 10

- **15.6" widescreen, glossy display with LED backlight**
- **Integrated camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Advanced Audio™ certified audio system**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache or Intel Core i5 processor i5-450M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • ooVoo™ • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live Essential • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Lenovo DirectShare			
Memory	3GB or 4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant			
Diskette drive	None					
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in					
SATA disk	320GB (5400 rpm) or 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high					
Widescreen display	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio					
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator					
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI, HDCP-compliant					
Keyboard	Full-size keyboard, 6-row, recovery button					
Numeric keypad	Numeric keypad on right of keyboard					
Touch controls	Touch-sensitive buttons for mute, OneKey Theater, Smart noise control, and Energy Management					
Light sensor	None		78Y1532			
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)					
Dimensions ³	(WxDxH): 14.8" x 9.8" x 0.7" to 1.4"; 376.8mm x 249.8mm x 17.3mm to 34.9mm					
Weight ²	with optical drive and battery: <i>6-cell</i> : 5.73 lb (2.6 kg)					
Case color	Black top, black bottom					
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic					
Battery - type	Lithium Ion 6-cell					
Battery - life ¹⁰	Up to 4 hr					
Chipset	Mobile Intel HM55 Express Chipset				78Y1533	
ExpressCard/34	One slot (ExpressCard/34)					
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)					
Ports	Two USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)					
TV tuner	None					
PCIe Mini Card	Two PCIe Mini Card slots					
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Half Mini Card, Broadcom® chip or Atheros chip					
Bluetooth™	Bluetooth 2.1 wireless, LED indicator					
Modem	None					
Ethernet	10/100M ethernet, Realtek® RTL8103EL		78Y1536			
Audio support	High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2), Dolby Advanced Audio certification / microphone, microphone input jack (3.5 mm), headphone jack (stereo, 3.5 mm)					
Security	User password, hard disk password, supervisor password, security lockhole					
Fingerprint reader	None					
		78Y1538				
		⇒ 24x ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686				

See footnotes for important warranty information
 US models announced May 12, 2010

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Limited Warranty¹²

- ⇒ **1-year parts and labor**
- ⇒ **Depot repair service¹⁹**
- ⇒ **Service upgrade options (in eligible locations):⁹**
 - **1-year Lenovo Onsite Repair¹³** 78Y1532
 - **1-year Onsite with accidental damage protection** 78Y1533
 - **2-year Lenovo Onsite Repair¹³** 78Y1536
 - **3-year Lenovo Depot Repair** 78Y1538
- ⇒ **24x¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686**

Type-model	Pro- cessor	GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Discrete graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Blue- tooth	Win7 preload	Avail date
0914-39U	i3-350M	2.26	2.53	4GB	15.6" WXGA	LED	1.3M	GF 310M	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	None	Prem 64	May 10
0914-33U	i5-430M	2.26	2.53	4GB	15.6" WXGA	LED	1.3M	GF 310M	320GB	DVD±RW	11b/g/n	Black	None	Prem 64	May 10

- **15.6" widescreen, glossy display with LED backlight**
- **Integrated camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Advanced Audio™ certified audio system**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	<i>Widescreen flexibility; two-spindle</i> Intel® Core™ i3 processor i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache or Intel Core i5 processor i5-430M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• ooVoo™• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live Essential• CyberLink YouCam• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Lenovo DirectShare	
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant Limited Warranty ¹² ↗ 1-year parts and labor ↗ Depot repair service ¹⁹ ↗ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 1-year Lenovo Onsite Repair¹³ 78Y1532• 1-year Onsite with accidental damage protection 78Y1533• 2-year Lenovo Onsite Repair¹³ 78Y1536• 3-year Lenovo Depot Repair 78Y1538 ↗ 24x ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686	
Diskette drive	None			
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in			
SATA disk	320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high			
Widescreen display	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator			
Discrete graphics	NVIDIA® GeForce® G310M , PCI Express® x16, 512MB memory, DirectX® 10.1, NVIDIA PureVideo® HD technology, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI, HDCP-compliant			
Keyboard	Full-size keyboard, 6-row, recovery button			
Numeric keypad	Numeric keypad on right of keyboard			
Touch controls	Touch-sensitive buttons for mute, OneKey Theater, Smart noise control, and Energy Management			
Light sensor	None			
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)			
Dimensions ³	(WxDxH): 14.8" x 9.8" x 0.7" to 1.4"; 376.8mm x 249.8mm x 17.3mm to 34.9mm			
Weight ²	with optical drive and battery: <i>6-cell</i> : 5.73 lb (2.6 kg)			
Case color	Black top, black bottom			
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic			
Battery - type	Lithium Ion 6-cell			
Battery - life ¹⁰	Up to 3.5 hr			
Chipset	Mobile Intel HM55 Express Chipset			
ExpressCard/34	One slot (ExpressCard/34)			
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)			
Ports	Two USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
TV tuner	None			
PCIe Mini Card	Two PCIe Mini Card slots			
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Half Mini Card, Broadcom® chip or Atheros chip			
Bluetooth™	None			
Modem	None			
Ethernet	10/100M ethernet, Realtek® RTL8103EL			
Audio support	High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2), Dolby Advanced Audio certification / microphone, microphone input jack (3.5 mm), headphone jack (stereo, 3.5 mm)			
Security	User password, hard disk password, supervisor password, security lockhole			
Fingerprint reader	None			

See footnotes for important warranty information
 US models announced May 12, 2010

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Limited Warranty¹²

⇒ **1-year parts and labor**

⇒ **Depot repair service¹⁹**

⇒ **Service upgrade options (in eligible locations):⁹**

- **1-year Lenovo Onsite Repair¹³** 78Y1532
- **1-year Onsite with accidental damage protection** 78Y1533
- **2-year Lenovo Onsite Repair¹³** 78Y1536
- **3-year Lenovo Depot Repair** 78Y1538

⇒ **24x¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686**

Type-model	Pro- cessor	GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Discrete graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Blue- tooth	Win7 preload	Avail date
0914-3BU	i5-540M	2.53	3.06	4GB	15.6" WXGA	LED	1.3M	GF 310M	500GB ⁸	DVD±RW	Intel 1000 ²⁸	Black	Blue	Prem 64	May 10

- **15.6" widescreen, glossy display with LED backlight**
- **Integrated camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Advanced Audio™ certified audio system**
- **Lenovo Rescue System provides OneKey™ recovery and OneKey Antivirus without booting into Windows**
- **OneKey Theater allows pressing one key to optimize video and audio experience by switching from normal mode to movie mode**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i5 processor i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • ooVoo™ • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live Essential • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Lenovo DirectShare
Memory	4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		
Widescreen display	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy); LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Discrete graphics	NVIDIA® GeForce® G310M , PCI Express® x16, 512MB memory, DirectX® 10.1, NVIDIA PureVideo® HD technology, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI, HDCP-compliant		
Keyboard	Full-size keyboard, 6-row, recovery button		
Numeric keypad	Numeric keypad on right of keyboard		
Touch controls	Touch-sensitive buttons for mute, OneKey Theater, Smart noise control, and Energy Management		
Light sensor	None		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	(WxDxH): 14.8" x 9.8" x 0.7" to 1.4"; 376.8mm x 249.8mm x 17.3mm to 34.9mm		
Weight ²	with optical drive and battery: 6-cell: 5.73 lb (2.6 kg)		
Case color	Black top, black bottom		Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ • 1-year Lenovo Onsite Repair ¹³ 78Y1532 • 1-year Onsite with accidental damage protection 78Y1533 • 2-year Lenovo Onsite Repair ¹³ 78Y1536 • 3-year Lenovo Depot Repair 78Y1538 ⇨ 24x ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	Up to 3.5 hr		
Chipset	Mobile Intel HM55 Express Chipset		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Two USB 2.0 and one eSATA/USB combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	Two PCIe Mini Card slots		
Intel 1000 ²⁸	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Modem	None		
Ethernet	10/100M ethernet, Realtek® RTL8103EL		
Audio support	High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2), Dolby Advanced Audio certification / microphone, microphone input jack (3.5 mm), headphone jack (stereo, 3.5 mm)		
Security	User password, hard disk password, supervisor password, security lockhole		
Fingerprint reader	None		

See footnotes for important warranty information
US model announced May 12, 2010

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**Partial list of accessories supported on:
IdeaPad S9, S10, S10-2, S12, U110, U330, U450p, Y430, Y450, Y510,
Y530, Y550, Y650, Y710, and Y730**

Storage and removable storage

USB 2.0 MyKey E10 Flash Drive 1GB	45J7701	ann 04/29/08
USB 2.0 MyKey E10 Flash Drive 2GB	45J7702	ann 04/29/08
USB 2.0 MyKey E10 Flash Drive 4GB	45J7703	ann 04/29/08
USB 2.0 MiniKey M10D1 Flash 2GB (gray)	45J7752	ann 05/20/08
USB 2.0 MiniKey M10D2 Flash 2GB (black)	45J7754	ann 05/20/08
USB 2.0 MiniKey M10E1 Flash 2GB (teal)	45J7756	ann 05/20/08
USB 2.0 MiniKey M10E2 Flash 2GB (pink)	45J7758	ann 05/20/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 DataSlim E16 Portable HD 160GB	45J7700	ann 04/29/08
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Super Multi-Burner Drive (black)	45Y2152	ann 01/06/09

Expansion

Lenovo Essential Notebook Stand	45J9292	ann 05/12/09
S9, S10		
USB Port Replicator with Digital Video	45K1610	ann 07/28/09

Keyboard

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
IdeaPad Mini Optical Mouse M10 (black)	47J7729	ann 06/17/08
IdeaPad Mini Optical Mouse M10A (black)	45J7730	ann 07/15/08
Lenovo® Mini Optical Mouse M30 (black)	47J7735	ann 06/17/08
Lenovo Mini Optical Mouse M30 (white)	47J7736	ann 06/17/08
Lenovo Mini Optical Mouse M30 (red)	47J7737	ann 06/17/08
Lenovo Mini Optical Mouse M30 (blue)	47J7738	ann 06/17/08
Mini Wireless Laser Mouse N10 (black)	45J7731	ann 06/17/08
Mini Wireless Laser Mouse N10 (red)	45J7732	ann 06/17/08

Batteries

S9, S10		
IdeaPad S9/S10 Li-Ion Battery 6-cell (white)	45K2177	ann 12/16/08
IdeaPad S9/S10 Li-Ion Battery 6-cell (black)	45K2178	ann 12/16/08
Y510, Y530, Y710, and Y730		
Lenovo Y510/Y710 Li-Ion Battery 6-cell	45J7706	ann 04/29/08
Y450 and Y550		
Lenovo Y450/Y550 Li-Ion Battery 6-cell	55Y2054	ann 04/07/09
Y650		
Lenovo Y650 Li-Ion Battery 6-cell	55Y2055	ann 04/07/09
S9, S10		
IdeaPad S9/S10 40W AC Adapter (white)	45K2200	ann 11/18/08
IdeaPad S9/S10 40W AC Adapter (black)	45K2209	ann 11/18/08
U110 and Y510		
90W Ultraslim AC/DC Combo Adapter	41R4493	ann 09/22/09
U330, U350, U450P, U550, Y450, Y550, Y650 and Y730 ⁴⁵		
Lenovo 90W AC Adapter	45J7717	ann 08/12/08

⁴⁵ Only compatible with the integrated graphic models of Y730

Carrying Cases

S9, S10		
IdeaPad 10" Sleeve S110 (pink and gray)	45K2171	ann 10/14/08
S9, S10, U110 and U330		
Women's Executive Red Leather Tote	22P8858	
Lenovo Women's Tote L34 (brown)	45J7728	ann 06/03/08
S9, S10, U110, U330, Y430, Y450, Y510, Y530, and Y550		
IdeaPad Wenger® Backpack	45K1397	ann 10/14/08
IdeaPad B450 Backpack (pink)	55Y2034	ann 01/06/09
Lenovo Entry 15" Backpack B10	45J5468	ann 07/15/08
Lenovo 15" Top Loader T35 (black)	45J7726	ann 06/03/08
Lenovo Carrying Case - BackPack	40Y8603	ann 05/01/07
Lenovo Carr Case - Performance BackPack	41U5254	ann 05/01/07
ThinkPad Sleek BackPack	41A4277	
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08

Monitors

Lenovo® L215 Wide 21.5" Monitor	6325HB1	ann 01/27/09
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Consumer monitors

Lenovo L195 Wide 19" LCD Monitor	4418HC1	ann 09/02/08
Lenovo L222 Wide 22" LCD Monitor	4432HF1	ann 09/02/08

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

Footnotes:

- ¹ Power management, including Intel® SpeedStep® Technology, reduces processor speed when in battery mode.
- ² **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.
- ³ **Thinness** may vary at certain points on the system.
- ⁴ **Wireless capability:** Requires compatible wireless-enabled options sold separately.
- ⁵ **Post-warranty annual maintenance agreement:** Service begins at the end of the base warranty or the end of any other applied warranty and maintenance option, whichever occurs last. Service delivery is not available the same day the maintenance agreement is purchased. Maintenance agreements must be purchased and the registration successfully completed prior to the service being available.
- ⁶ **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.
- ⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
- ⁹ **Service upgrade options:** Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees.
- ¹⁰ **Battery:** These model numbers achieved the battery life based on MobileMark® 2007 during testing. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.
- ¹¹ **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.
- ¹² **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.
- ¹³ **Onsite Repair:** If a machine is listed as having "On-site", this means that on-site service is available for the replacement of parts for warranty repairs. Certain parts, referred to as Customer Replaceable Unit ("CRU") parts, are easy to install and require little or no tools or technical knowledge. Some examples of CRU parts are mice, keyboards, hard disk drives, speakers, and memory. If your problem can be resolved with a CRU, the Support Center will offer to ship the part to you for you to install.
- ¹⁴ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.
- ¹⁵ **Modem speeds:** Public network download speeds are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ¹⁶ **Response times may vary.** May exclude some holidays. Telephone support may be subject to additional charges.
- ¹⁷ **International Warranty Service** is available for most products in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.
- ¹⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary and may exclude some holidays.
- ¹⁹ **Depot repair service:** In the United States call 1-877-453-6686. The customer may be asked certain diagnostic questions before a courier is sent. Your purchase includes this depot repair service, available in the U.S. during the limited warranty period.
- ²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.
- ²¹ **For combination drives,** maximum possible speeds only are given in the following order: CD write, CD rewrite, CD read, DVD read.
- ²² **Lenovo Care Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part can be express shipped to you for quick replacement. For notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See terms and conditions for complete details and restrictions.

²⁵ **Wireless WAN Cards:** Wireless data service requires separate agreement with Verizon Wireless. Verizon Wireless, not Lenovo, is solely responsible for service. Monthly and airtime charges may apply. Service may not be available in all areas; purchaser is responsible for verifying with Verizon Wireless that service is available for the intended location before the purchase of the card. For complete details, including service plans, additional required hardware or software, and service coverage, visit www.verizonwireless.com.

²⁸ **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.



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Part number	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ³	Media reader	SATA disk	SATA optical	Graphics	Modem	Monitor	Camera	Vista preload	Avail date
57-078915	4x5	Celeron E1200	1.60	512KB	2	2GB	16-in-1	320GB ²	DVD±RW	GMA 3100			Camera	Home Prem	May 08
57-078894	4x5	Pentium E2140	1.60	1MB	2	4GB	16-in-1	500GB	DVD±RW	GMA 3100			Camera	Home Prem	May 08
57-076245	4x5	Pentium E2180	2.00	1MB	2	1GB	16-in-1	320GB	DVD±RW	GMA 3100	Mod			Home Basic	May 08
57-076162	4x5	Pentium E2180	2.00	1MB	2	2GB	16-in-1	320GB	DVD±RW	GMA 3100	Mod		Camera	Home Prem	May 08
57-076161	4x5	Pentium E2180	2.00	1MB	2	3GB	16-in-1	500GB	DVD±RW	GMA 3100	Mod			Home Prem	May 08
57-076522	4x5	Pentium E2180	2.00	1MB	2	3GB	16-in-1	500GB	DVD±RW	GMA 3100	Mod	L222	Camera	Home Prem	May 08

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **(Select models) Healthcare eyesight protection software detect distance between user and monitor and adjusts monitor brightness based on environment**
- **(Select models) Lenovo Bright Eye camera and VeriFace face recognition software help control access to your computer by recognizing your face**

Processor	Intel Celeron Dual-Core Processor E1200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2140 or E2180 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB L2 cache		Tower <ul style="list-style-type: none">• Black and silver bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention	
Implementation	Processor in FC-LGA6 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk Slot 1: half-length,full-height, PCI Express x1 Ver 1.1 Slot 2: half-length,full-height, PCI Express x16 Ver 1.1 Slot 3: half-length,full-height, 32-bit PCI Ver 2.3 * Slot 4: half-length,full-height, 32-bit PCI Ver 2.3 * modem in slot in some models	
Memory	1GB, 2GB, 3GB, or 4GB std , 4GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; 1 socket available			
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory, one 15-pin analog D-sub connector			
SATA disk	320GB or 500GB , SATA 3.0Gb/s, 7200 rpm			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7DH			
SATA DVD±RW	Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors			
EIDE controller	One			
EIDE cables	None			
Diskette drive	None			
Media reader	16-in-1 media reader, internal USB 2.0			
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 Digital Home (ICH7DH) for SATA 3.0Gb/s, PCI Express® x1, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O for serial, parallel, keyboard, mouse functions			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, one serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) audio, ALC662 codec			
External speakers	None			
Internal speaker	None			
Ethernet	10/100 ethernet on planar, Intel 82562GZ (PHY/MAC)			
Modem	<i>Some:</i> 56K ¹⁰ V.92 data/fax soft modem, PCI adapter			
Security chip	None			
TV tuner	None			
Camera	<i>Some:</i> Lenovo Bright Eye camera, 0.3-megapixel, fixed focus			
Keyboard	104-key antibacterial keyboard (PS/2 connector)			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi			
Power supply	280 watts, universal, manual switch			
Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® Vista® Home Basic 32- <i>Some:</i> Genuine Windows Vista Home Premium 32❖ 57-076245: Vista Basic logo❖ <i>Others:</i> Vista Premium logo				
Preloaded applications ⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Lenovo Healthcare Software• Lenovo Media Studio• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2007• EarthLink®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Corel® WinDVD® (DVD±RW)• CyberLink Power2Go (DVD±RW)				
Available at these retailers <ul style="list-style-type: none">• B&H™• J&R™• Newegg®• TigerDirect• ASI Computer Systems				
Limited Warranty ¹ <ul style="list-style-type: none">≈ 1-year parts and labor≈ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)≈ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)≈ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686				

Part number	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	Media reader	SATA disk	SATA optical	Graphics	Modem	Monitor	Camera	Vista preload	Avail date
57-076523	4x5	Core 2 Duo E4600	2.40	2MB	2	3GB	16-in-1	500GB ²	DVD±RW	GMA 3100	Mod	None	None	Home Prem	May 08
57-082791	4x5	Core 2 Duo E7200	2.53	3MB	2	3GB	16-in-1	500GB	DVD±RW	GMA 3100		None	Cam	Home Prem	Aug 08
57-076158	4x5	Core 2 Quad Q6600	2.40	8MB	4	3GB	16-in-1	500GB	DVD±RW	GMA 3100	Mod	None	None	Home Prem	May 08
57-076244	4x5	Core 2 Quad Q6600	2.40	8MB	4	3GB	16-in-1	500GB	Blu-ray	HD 2600 PRO	Mod	None	None	Home Prem	May 08
57-082788	4x5	Core 2 Quad Q6600	2.40	8MB	4	4GB	16-in-1	500GB	DVD±RW	9300 GE	Mod	None	Cam	Home Prem	Aug 08

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- **(Select models) Lenovo Bright Eye camera and VeriFace face recognition software help control access to your computer by recognizing your face**

Processor	Intel® Core™ 2 Duo Processor E4600 with dual-core Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo Processor E7200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q6600 with quad-core (dual-core on dual-die), Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 8MB L2 cache		Tower <ul style="list-style-type: none">• Black and silver bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention		
Implementation	Processor in FC-LGA6 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk		
Memory	3GB or 4GB std , 4GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available				
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory, one 15-pin analog D-sub connector <i>Some:</i> ATI™ Radeon™ HD 2600 PRO , PCI Express x16, 256MB memory, DirectX® 10, ATI Avivo™, one D-sub connector and one DVI-D connector, HDCP-compliant <i>Some:</i> NVIDIA® GeForce® 9300 GE , PCI Express x16, 256MB memory, DirectX® 10, TurboCache, PureVideo™ HD technology, S-video out, VGA connector, DVI-I connector, HDCP-compliant		Slot 1: half-length, full-height, PCI Express x1 Ver 1.1 Slot 2: half-length, full-height, PCI Express x16 Ver 1.1** Slot 3: half-length, full-height, 32-bit PCI Ver 2.3 * Slot 4: half-length, full-height, 32-bit PCI Ver 2.3 * modem in slot ** used in some models		
SATA disk	500GB , SATA 3.0Gb/s, 7200 rpm				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7DH				
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), supports HD-DVD playback, DVD and CD recordable				
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors				
EIDE controller	One				
EIDE cables	None				
Diskette drive	None				
Media reader	16-in-1 media reader, internal USB 2.0				
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 Digital Home (ICH7DH) for SATA 3Gb/s, PCI Express® x1, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O for serial, parallel, keyboard, mouse functions				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Four USB 2.0, one serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (DB-15, DVI-D in some models)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)				
Audio	High Definition (HD) audio, ALC662 codec				
External speakers	None				
Internal speaker	None				
Ethernet	10/100 ethernet on planar, Intel 82562GZ (PHY/MAC)				
Modem	<i>Some:</i> 56K ¹⁰ V.92 data/fax soft modem, PCI adapter				
Security chip	None				
TV tuner	None				
Camera	<i>Some:</i> Lenovo Bright Eye camera, 0.3-megapixel, fixed focus				
Keyboard	104-key anti-bacterial keyboard (PS/2 connector)				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi				
Power supply	280 watts, universal, manual switch				
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Home Premium 32◇ Vista Premium logo		Preloaded applications⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Lenovo Healthcare Software• Lenovo Media Studio• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2007• EarthLink®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Corel® WinDVD® (DVD±RW, Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)		Available at these retailers <ul style="list-style-type: none">• B&H™• J&R™• MICROCENTER®• Newegg®• TigerDirect	
				Limited Warranty¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686	

See footnotes for important warranty information

US models announced July 15, 2008; previous models on May 12, 2008

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Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ³	Media reader	SATA disk	SATA optical	Graphics	Modem	Monitor	Camera	Vista preload	Avail date
5313-3AU	4x5	Celeron E1200	1.60	512KB	2	1GB		160GB ²	DVD	GMA 3100		None		Home Basic	Jul 08
5313-3BU	4x5	Celeron E1200	1.60	512KB	2	1GB	16-in-1	250GB	DVD±RW	GMA 3100	Mod	None		Home Prem	Jul 08
5313-4AU	4x5	Pentium E2180	2.00	1MB	2	2GB	16-in-1	320GB	DVD±RW	GMA 3100	Mod	None	Camera	Home Prem	Jul 08
5313-4BU	4x5	Pentium E2180	2.00	1MB	2	3GB	16-in-1	500GB	DVD±RW	GMA 3100		None	Camera	Home Prem	Jul 08
5313-4DU	4x5	Pentium E2200	2.20	1MB	2	2GB		250GB	DVD±RW	GMA 3100		None		Home Prem	Oct 08
5313-4EU	4x5	Pentium E2200	2.20	1MB	2	3GB		320GB	DVD±RW	GMA 3100		None		Home Prem	Oct 08
5313-4CU	4x5	Pentium E2200	2.20	1MB	2	4GB	16-in-1	500GB	DVD±RW	GMA 3100		None	Camera	Home Prem	Jul 08
5313-5CU	4x5	Pentium E5200	2.50	2MB	2	4GB	16-in-1	640GB	DVD±RW	GMA 3100		None		Home Prem	Nov 08


- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **(Select models) Healthcare eyesight protection software detect distance between user and monitor and adjusts monitor brightness based on environment**
- **(Select models) Lenovo Bright Eye camera and VeriFace face recognition software help control access to your computer by recognizing your face**

Processor	Intel Celeron Dual-Core Processor E1200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2180, E2200, or E5200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus; <i>E2180/E2200:</i> 1MB L2 cache; <i>E5200:</i> 2MB L2 cache	Tower <ul style="list-style-type: none">• Black and silver bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention
Implementation	Processor in FC-LGA6 package in LGA775 socket	
Memory	1GB, 2GB, 3GB, or 4GB std , 4GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; 1 socket available	Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory, one 15-pin analog D-sub connector	Slot 1: half-length,full-height, PCI Express x1 Ver 1.1 Slot 2: half-length,full-height, PCI Express x16 Ver 1.1 Slot 3: half-length,full-height, 32-bit PCI Ver 2.3 * Slot 4: half-length,full-height, 32-bit PCI Ver 2.3 * modem in slot in some models
SATA disk	160GB, 250GB, 320GB, 500GB, or 640GB SATA 3Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7DH	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors	
EIDE controller	One	
EIDE cables	None	
Diskette drive	None	
Media reader	<i>Some:</i> 16-in-1 media reader, internal USB 2.0	
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 Digital Home (ICH7DH) for SATA 3Gb/s, PCI Express [®] x1, PCI 2.3, USB, LPC bus / Winbond [®] W83627DHG Super I/O for serial, parallel, keyboard, mouse functions	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Four USB 2.0, one serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (DB-15)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) audio, ALC662 codec	
External speakers	None	
Internal speaker	None	
Ethernet	10/100 ethernet on planar, Intel 82562GZ (PHY/MAC)	
Modem	<i>Some:</i> 56K ¹⁰ V.92 data/fax soft modem, PCI adapter	
Security chip	None	
TV tuner	None	
Camera	<i>Some:</i> Lenovo Bright Eye camera, 0.3-megapixel, fixed focus	
Keyboard	104-key antibacterial keyboard (PS/2 connector)	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi	
Power supply	280 watts, universal, manual switch	
Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows[®] Vista[®] Home Basic 32- <i>Some:</i> Genuine Windows Vista Home Premium 32✧ <i>5313-3AU/3BU:</i> Vista Basic logo✧ <i>Others:</i> Vista Premium logo		Available at these retailers <ul style="list-style-type: none">• lenovo.com• Fry's
Preloaded applications ⁵ <ul style="list-style-type: none">• Lenovo[®] OneKey Recovery• Lenovo Healthcare Software• Lenovo Media Studio• Driver and Application Installation• Trend Micro[™] PC-cillin[™] Internet Security 2007• EarthLink[®]• Windows Live[™] Toolbar• Microsoft[®] Office 2007 Trial (60-day)• VeriFace[™]• Corel[®] WinDVD[®] (DVD, DVD±RW)• CyberLink Power2Go (DVD, DVD±RW)		Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686



	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	Media reader	SATA disk	SATA optical	Graphics	Modem	Monitor	Camera	Vista preload	Avail date
E8500	5313-1FU	4x5	Core 2 Duo E7200	2.53	3MB	2	4GB	16-in-1	640GB ²	DVD±RW	GMA 3100	None	None	Cam	Home Prem	Oct 08
	5313-2BU	4x5	Core 2 Quad Q6600	2.40	8MB	4	4GB	16-in-1	500GB	DVD±RW	GMA 3100	None	None		Home Prem	Jul 08
	5313-2CU	4x5	Core 2 Quad Q6600	2.40	8MB	4	4GB	16-in-1	500GB	Blu-ray	9300 GE	None	None		Home Prem	Jul 08
E8500	5313-2FU	4x5	Core 2 Quad Q6600	2.40	8MB	4	4GB	16-in-1	1TB	Blu-ray	9300 GE	None	None		Home Prem	Oct 08

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
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- **(Select models) Lenovo Bright Eye camera and VeriFace face recognition software help control access to your computer by recognizing your face**

Processor	Intel® Core 2 Duo™ Processor E7200 with dual-core Intel 64 Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q6600 with quad-core (dual-core on dual-die), Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 8MB L2 cache		Tower <ul style="list-style-type: none">• Black and silver bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention
Implementation	Processor in FC-LGA6 package in LGA775 socket		
Memory	4GB std, 4GB max ⁸ , PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		<div>Bay ① 5.25", 1.6" high, access, standard optical</div> <div>Bay ② 5.25", 1.6" high, access, open</div> <div>Bay ③ 3.0", 1" high, access, 16-in-1 media reader</div> <div>Bay ④ 3.5", 1" high, no access, standard disk</div> <div>Bay ⑤ 3.5", 1" high, no access, optional disk</div> <div>Slot 1: half-length,full-height, PCI Express x1 Ver 1.1</div> <div>Slot 2: half-length,full-height, PCI Express x16 Ver 1.1**</div> <div>Slot 3: half-length,full-height, 32-bit PCI Ver 2.3</div> <div>Slot 4: half-length,full-height, 32-bit PCI Ver 2.3</div> <div>** used in some models</div> <div></div>
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 3100 (GMA 3100), integrated graphics in G31, uses main memory, one 15-pin analog D-sub connector <i>Some:</i> NVIDIA® GeForce® 9300 GE, PCI Express® x16, 256MB memory, DirectX® 10, TurboCache, PureVideo™ HD technology, S-video out, VGA connector, DVI-I connector, HDCP-compliant		
SATA disk	500GB, 640GB, or 1TB, SATA 3.0Gb/s, 7200 rpm		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7DH		
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, supports HD-DVD playback, DVD and CD recordable		
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors		
EIDE controller	One		
EIDE cables	None		
Diskette drive	None		
Media reader	16-in-1 media reader, internal USB 2.0		
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 Digital Home (ICH7DH) for SATA 3Gb/s, PCI Express® x1, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O for serial, parallel, keyboard, mouse functions		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, one serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (DB-15, DVI-I in some models)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) audio, ALC662 codec		
External speakers	None		
Internal speaker	None		
Ethernet	10/100 ethernet on planar, Intel 82562GZ (PHY/MAC)		
Modem	None		
Security chip	None		
TV tuner	None		
Camera	<i>Some:</i> Lenovo Bright Eye camera, 0.3-megapixel, fixed focus		
Keyboard	104-key anti-bacterial keyboard (PS/2 connector)		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi		
Power supply	280 watts, universal, manual switch		
<div>Preloaded operating system²⁰<ul style="list-style-type: none">- Genuine Windows® Vista® Home Premium 32♦ Vista Premium logo</div> <div>Preloaded applications⁵<ul style="list-style-type: none">• Lenovo® OneKey Recovery• Lenovo Healthcare Software• Lenovo Media Studio• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2007• EarthLink®• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Corel® WinDVD® (DVD±RW, Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)</div>			<div>Available at these retailers<ul style="list-style-type: none">• lenovo.com• Fry's</div> <div>Limited Warranty¹<ul style="list-style-type: none">➤ 1-year parts and labor➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)➤ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686</div>

See footnotes for important warranty information

US models announced October 22, 2008; previous models on July 15, 2008

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Part number	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	Media reader	SATA disk	SATA optical	Graphics	Monitor	Camera	802.11 wireless	Vista preload	Vista logo	Avail date
57092255	4x5	E5200	2.50	2MB	2	4GB	16-in-1	500GB ²	Blu-ray	GMA 4500			None	Prem 64	Basic	Jan 09
57094704	4x5	E5200	2.50	2MB	2	4GB	16-in-1	640GB	DVD±RW	GMA 4500	L222 HD	Camera	None	Prem 64	Basic	Jan 09
57092262	4x5	Q8200	2.33	4MB	4	4GB	16-in-1	1TB	Blu-ray	GMA 4500			11b/g	Prem 64	Basic	Mar 09

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Pentium® Dual-Core Processor E5200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core (dual-core on dual-die), Intel 64 Technology, Execute Disable Bit, EIST, 1333MHz system bus, and 4MB L2 cache Processor in FC-LGA6 package in LGA775 socket		Tower <ul style="list-style-type: none">• Black bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention	
Implementation			Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk	
Memory	4GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 240-pin DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available		Slot 1: half-length, full-height, PCI Express x16 Ver 2.0 Slot 2: half-length, full-height, PCI Express x1 Ver 2.0 * Slot 3: half-length, full-height, 32-bit PCI Ver 2.3 Slot 4: half-length, full-height, 32-bit PCI Ver 2.3 * Wireless adapter in slot in some models	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in G43, uses main memory, DirectX® 10, one 15-pin analog VGA DB-15 connector			
SATA disk	500GB , 640GB , or 1TB SATA 3Gb/s, 7200 rpm			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10			
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, DVD and CD recordable			
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors			
EIDE controller	None			
Diskette drive	None			
Media reader	16-in-1 media reader, internal USB 2.0			
Chipset	Intel G43 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 [ICH10] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5147-NW Super I/O		Lenovo L222 Wide (HD) <ul style="list-style-type: none">• Widescreen 22-inch flat panel monitor• Active Matrix TFT LCD screen• Supports WUXGA 1920x1200 resolution• High Definition (HD) ready; supports 1080p video• 16:10 aspect ratio• 22.0" (559mm) viewable image size (diagonal)• 300 nits brightness (typical)• 1000:1 contrast ratio (typical)• 5ms pixel response time• Dual video input: one analog D-sub connector and one digital DVI-D connector• HDCP-compliant• Ergonomic stand tilts and swivels• High-gloss black case• Touch-sensitive control button• Soundbar with speakers included <i>Lenovo L222 Wide (HD) Monitor is only bundled with some models</i>	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, one serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) audio, ALC662 codec			
External speakers	None			
Internal speaker	None			
Ethernet	10/100 ethernet on planar, RealTek® RTL8102E			
Wireless	<i>Some:</i> 11b/g wireless ⁴ , Broadcom BCM4312, PCIe x1 adapter			
Modem	None			
Security chip	None			
TV tuner	None			
Camera	<i>Some:</i> Lenovo Bright Eye camera, 0.3-megapixel, fixed focus			
Keyboard	104-key antibacterial keyboard (PS/2 connector)			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi			
Power supply	280 watts, universal, manual switch			
Preloaded operating system ²⁰ - Genuine Windows® Vista® Home Premium 64		Preloaded applications ⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Corel® WinDVD® (DVD±RW, Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)		
		Available at these retailers <ul style="list-style-type: none">• Newegg®• TigerDirect		
		Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686		


See footnotes for important warranty information

US model announced March 17, 2009; previous models on January 27, 2009

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(KW2-1) March 2009

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	Media reader	SATA disk	SATA optical	Graphics	Monitor	Camera	802.11 wireless	Vista preload	Vista logo	Avail date
5358-4AU	4x5	E2220	2.40	1MB	2	2GB	16-in-1	250GB ²	Blu-ray	GMA 4500	None	None		Prem 64	Basic	Jan 09
5358-4BU	4x5	E2220	2.40	1MB	2	4GB	16-in-1	640GB	Blu-ray	GMA 4500	None	None		Prem 64	Basic	Jan 09
5358-1FU	4x5	E5200	2.50	2MB	2	4GB	16-in-1	500GB	DVD±RW	GMA 4500	None	None		Prem 64	Basic	Jan 09
5358-1BU	4x5	E5200	2.50	2MB	2	4GB	16-in-1	640GB	DVD±RW	9300 GE	None	None	11b/g	Prem 64	Prem	Jan 09
5358-2CU	4x5	Q8200	2.33	4MB	4	4GB	16-in-1	640GB	DVD±RW	9300 GE	None	None		Prem 64	Prem	Jan 09
5358-2DU	4x5	Q8200	2.33	4MB	4	4GB	16-in-1	1TB	Blu-ray	9300 GE	None	None	11b/g	Prem 64	Prem	Jan 09

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Pentium® Dual-Core Processor E2220 or E5200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus; <i>E2220:</i> 1MB L2 cache; <i>E5200:</i> 2MB L2 cache or Intel Core™ 2 Quad Processor Q8200 with quad-core (dual-core on dual-die), Intel 64 Technology, Execute Disable Bit, EIST, 1333MHz system bus, and 4MB L2 cache Processor in FC-LGA6 package in LGA775 socket	Tower <ul style="list-style-type: none">• Black bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention
Implementation		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk Slot 1: half-length,full-height, PCI Express x16 Ver 2.0 ** Slot 2: half-length,full-height, PCI Express x1 Ver 2.0 * Slot 3: half-length,full-height, 32-bit PCI Ver 2.3 Slot 4: half-length,full-height, 32-bit PCI Ver 2.3 * Wireless adapter in slot in some models ** used in some models
Memory	2GB or 4GB std, 4GB max⁸, PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 240-pin DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; 1 socket available	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in G43, uses main memory, DirectX® 10, one 15-pin analog VGA DB-15 connector <i>Some:</i> NVIDIA® GeForce® 9300 GE , PCI Express® x16, 512MB memory, DirectX® 10, TurboCache, PureVideo™ HD technology, S-video out for TV-out, VGA DB-15 connector, DVI-I connector, HDCP-compliant	
SATA disk	250GB, 500GB, 640GB or 1TB SATA 3Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10	
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, DVD and CD recordable	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors	
EIDE controller	None	
Diskette drive	None	
Media reader	16-in-1 media reader, internal USB 2.0	
Chipset	Intel G43 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 [ICH10] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5147-NW Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, one serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), 1BU/2CU/2DU: monitor (VGA DB-15, DVI-I), S-Video out; <i>Others:</i> monitor (VGA DB-15)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) audio, ALC662 codec	
External speakers	None	
Internal speaker	None	
Wireless	<i>Some:</i> 11b/g wireless ⁴ , Broadcom BCM4312, PCIe x1 adapter	
Ethernet	10/100 ethernet on planar, Realtek® RTL8102E	
Modem	None	
Security chip	None	
TV tuner	None	
Camera	None	
Keyboard	104-key antibacterial keyboard (PS/2 connector)	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi	
Power supply	280 watts, universal, manual switch	
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Home Premium 64		
Preloaded applications⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Corel® WinDVD® (DVD±RW, Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)		
Available at these retailers <ul style="list-style-type: none">• lenovo.com• Fry's		
Limited Warranty¹ <ul style="list-style-type: none">➤ 1-year parts and labor➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)➤ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686		

- **Antibacterial keyboard** uses special material on the surface of the keys to restrain bacterial growth
- **Lenovo® Rescue System** provides OneKey recovery and OneKey Antivirus without booting into Windows

Available at these retailers

- TigerDirect

Limited Warranty¹

- 1-year parts and labor
- Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
- Service upgrade options (in eligible locations):⁹
 - 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)
- 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686

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Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	DIMM capacity	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Vista preload	Avail date
5359-1BU	4x5	E2220	2.40	1MB	2	5GB	(2, 2, 1)	16-in-1	500GB ²	DVD±RW	GMA 3100				Prem 64	Jan 09
5359-2EU	4x5	E5200	2.50	2MB	2	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100				Prem 64	Jan 09
5359-2BU	4x5	E5200	2.50	2MB	2	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100				Prem 64	Jan 09
5359-3EU	4x5	E7300	2.66	3MB	2	6GB	(2, 2, 2)	16-in-1	1TB	DVD±RW	GMA 3100			11b/g	Prem 64	Jan 09
5359-3AU	4x5	E7400	2.80	3MB	2	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100				Prem 64	Jan 09
5359-4CU	4x5	Q8200	2.33	4MB	4	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100				Prem 64	Jan 09
5359-4DU	4x5	Q8200	2.33	4MB	4	8GB	(2, 2, 2, 2)	16-in-1	1TB	DVD±RW	9300 GE			11b/g	Prem 64	Jan 09
5359-4GU	4x5	Q8200	2.33	4MB	4	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100				Prem 64	Feb 09
5359-5AU	4x5	Q9400	2.66	6MB	4	8GB	(2, 2, 2, 2)	16-in-1	1TB	Blu-ray	9300 GE	TV	Remote	11b/g	Prem 64	Jan 09

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Pentium® Processor E2220 or E5200 with dual-core , 800MHz system bus; <i>E2220</i> : 1MB L2 cache; <i>E5200</i> : 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 or E7400 with dual-core 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q8200 or Q9400 with quad-core (dual-core on dual-die), 1333MHz system bus; <i>Q8200</i> : 4MB L2 cache; <i>Q9400</i> : 6MB L2 cache		Tower <ul style="list-style-type: none">• Black color bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention	
Implementation	Processor in FC-LGA6 package in LGA775 socket			
Memory	5GB, 6GB, or 8GB std. , 8GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, four 240-pin DIMM sockets		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G33, uses main memory, one 15-pin analog VGA DB-15 connector <i>Some:</i> NVIDIA® GeForce® 9300 GE , PCI Express® x16, 512MB memory, DirectX® 10, TurboCache, PureVideo™ HD technology, S-video out for TV-out, VGA DB-15 connector, DVI-I connector, HDCP-compliant		Slot 1: half-length,full-height, PCI Express x16 Ver 1.1 ** Slot 2: half-length,full-height, PCI Express x1 Ver 1.1 * Slot 3: half-length,full-height, PCI Express x1 Ver 1.1 * Slot 4: half-length,full-height, 32-bit PCI Ver 2.3	
SATA disk	500GB, 640GB, or 1TB SATA 3Gb/s, 7200 rpm			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9DH			
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, DVD and CD recordable			
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors			
EIDE controller	None			
Diskette drive	None			
Media reader	16-in-1 media reader, internal USB 2.0			
Chipset	Intel G33 Express Chipset (PCI Express® x16), I/O Controller Hub 9 Digital Home [ICH9DH] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, one serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), <i>4DU/5AU</i> : monitor (VGA DB-15, DVI-I), S-Video out; <i>Others</i> : monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm), SPDIF-out			
Audio	High Definition (HD) audio, ADI1988 codec			
External speakers	None			
Internal speaker	None			
Ethernet	Gigabit ethernet on planar, Intel 82256GC			
Wireless	<i>Some:</i> 11b/g wireless ⁴ , Broadcom® BCM4312, PCIe x1 adapter			
Modem	None			
Security chip	None			
TV tuner	<i>Some:</i> Hybrid tuner, support analog (NTSC) and digital (ATSC) signal , Hauppauge WinTV-HVR-1250,PCIe x 1			
Remote control	<i>Some:</i> Philips® Vista MCE remote control (40-button), IR receiver via USB			
Camera	None			
Keyboard	104-key antibacterial keyboard (PS/2 connector)			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi			
Power supply	280 watts, universal, manual switch			
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Home Premium 64✧ <i>5359-4DU/5AU</i>: Vista Premium logo✧ <i>Others</i>: Vista Basic logo		Preloaded applications ⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Corel® WinDVD® (DVD±RW, Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)		



Available at these retailers

- lenovo.com
- Fry's

Limited Warranty¹

- 1-year parts and labor
- Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
- Service upgrade options (in eligible locations):
 - 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)
- 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686



Available at these retailers

- lenovo.com
- Fry's

Limited Warranty¹

- ≈ **1-year parts and labor**
- ≈ **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)**
- ≈ **Service upgrade options (in eligible locations):⁹**
 - **3-year Lenovo Onsite Repair 9x5 Next Business Day** (43R8882)
- ≈ **24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686**


See footnotes for important warranty information

Ⓢ US model announced February 24, 2009; previous models on January 13, 2009

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(KW3-2) March 2009

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	DIMM capacity	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Vista preload	Avail date
5359-2HU	4x5	E5200	2.50	2MB	2	6GB	(2, 2, 2)	16-in-1	500GB ²	DVD±RW	GMA 3100				Prem 64	Aug 09
5359-3NU	4x5	E7500	2.93	3MB	2	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100			11b/g	Prem 64	Aug 09
5359-3JU	4x5	E7500	2.93	3MB	2	6GB	(2, 2, 2)	16-in-1	500GB	DVD±RW	GMA 3100				Prem 64	Aug 09
5359-3LU	4x5	E7500	2.93	3MB	2	8GB	(2, 2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100				Prem 64	Aug 09
5359-4PU	4x5	Q8200	2.33	4MB	4	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100	TV	Remote	11b/g	Prem 64	Aug 09
5359-4QU	4x5	Q8200	2.33	4MB	4	8GB	(2, 2, 2, 2)	16-in-1	1TB	DVD±RW	9300 GE			11b/g	Prem 64	Aug 09

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Pentium® Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core (dual-core on dual-die), 1333MHz system bus, and 4MB L2 cache Processor in FC-LGA6 package in LGA775 socket		Tower <ul style="list-style-type: none">• Black color bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention		
Implementation					
Memory	6GB or 8GB std , 8GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, four 240-pin DIMM sockets				
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G33, uses main memory, one 15-pin analog VGA DB-15 connector <i>Some:</i> NVIDIA® GeForce® 9300 GE , PCI Express® x16, 512MB memory, DirectX® 10, TurboCache, PureVideo™ HD technology, S-video out for TV-out, VGA DB-15 connector, DVI-I connector, HDCP-compliant		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk Slot 1: half-length,full-height, PCI Express x16 Ver 1.1 ** Slot 2: half-length,full-height, PCI Express x1 Ver 1.1 * Slot 3: half-length,full-height, PCI Express x1 Ver 1.1 * Slot 4: half-length,full-height, 32-bit PCI Ver 2.3 * Wireless adapter or TV tuner in slot in some models ** used in some models		
SATA disk	500GB, 640GB , or 1TB SATA 3Gb/s, 7200 rpm				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9DH				
SATA DVD±RW	Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors				
EIDE controller	None				
Diskette drive	None				
Media reader	16-in-1 media reader, internal USB 2.0				
Chipset	Intel G33 Express Chipset (PCI Express® x16), I/O Controller Hub 9 Digital Home [ICH9DH] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Four USB 2.0, one serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), <i>4QU:</i> monitor (VGA DB-15, DVI-I), S-Video out; <i>Others:</i> monitor (VGA DB-15)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm), SPDIF-out				
Audio	High Definition (HD) audio, ADI1988 codec				
External speakers	None				
Internal speaker	None				
Ethernet	Gigabit ethernet on planar, Intel 82256GC				
Wireless	<i>Some:</i> 11b/g wireless ⁴ , Broadcom® BCM4312, PCIe x1 adapter				
Modem	None				
Security chip	None				
TV tuner	<i>Some:</i> Hybrid tuner, support analog (NTSC) and digital (ATSC) signal , Hauppauge WinTV-HVR-1250,PCIe x 1				
Remote control	<i>Some:</i> Philips® Vista MCE remote control (40-button), IR receiver via USB				
Camera	None				
Keyboard	104-key antibacterial keyboard (PS/2 connector)				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi				
Power supply	280 watts, universal, manual switch				
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Home Premium 64✧ <i>5359-4QU:</i> Vista Premium logo✧ <i>Others:</i> Vista Basic logo		Preloaded applications ⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Corel® WinDVD® (DVD±RW)• CyberLink Power2Go (DVD±RW)			
		Limited Warranty ¹ <ul style="list-style-type: none">➤ 1-year parts and labor➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)➤ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686			



Limited Warranty¹

- ⇒ 1-year parts and labor
- ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
- ⇒ Service upgrade options (in eligible locations):⁹
 - 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)
- ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686

See footnotes for important warranty information
 US models announced August 19, 2009

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 (KW3-3) August 2009



Lenovo IdeaCentre K300



Lenovo IdeaCentre K300



Lenovo IdeaCentre K300
(monitor not included)



Lenovo IdeaCentre K300
Power control switch




Lenovo IdeaCentre K300
toolless disk drive removal



Lenovo IdeaCentre K300
top button

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	DIMM capacity	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Win 7 preload	Avail date
5316-1AU	4x5	Q8300	2.50	4MB	4	6GB	(2, 2, 2)	16-in-1	640GB ²	DVD±RW	GMA X4500				Prem 64	Oct 09
5316-1BU	4x5	Q8300	2.50	4MB	4	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	HD4350	TV	Remote	11b/g ¹¹	Prem 64	Oct 09
5316-1GU	4x5	Q8300	2.50	4MB	4	6GB	(2, 2, 2)	16-in-1	640GB	Blu-ray	HD4650				Prem 64	Oct 09
5316-1CU	4x5	Q8300	2.50	4MB	4	8GB	(2, 2, 2, 2)	16-in-1	1TB	DVD±RW	HD4650			11b/g	Prem 64	Oct 09
5316-2AU	4x5	E5300	2.60	2MB	2	3GB	(1, 2)	16-in-1	320GB	DVD±RW	GMA X4500				Prem 64	Oct 09
5316-2CU	4x5	E7500	2.93	3MB	2	4GB	(2, 2)	16-in-1	640GB	DVD±RW	GMA X4500				Prem 64	Oct 09
5316-1EU	4x5	Q8300	2.50	4MB	4	8GB	(2, 2, 2, 2)	16-in-1	1TB	DVD±RW	HD4650	TV	Remote		Prem 64	Oct 09

- **Power control switch on front to adjust power and energy for three modes (cool, auto, and turbo)**
- **Lenovo Rescue System provides OneKey recovery without booting into Windows**


Processor	Intel® Pentium® Processor E5300 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo™ Processor E7500 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q8300 with quad-core (dual-core on dual-die), Intel 64 Technology, Execute Disable Bit, EIST, 1333MHz system bus, and 4MB L2 cache Processor in FC-LGA6 package in LGA775 socket		Tower <ul style="list-style-type: none">• Black bezel• 7.09" W X 17.32" D X 15.35" H• 180mm W X 440mm D X 390mm H• 24.6 lb (11.2 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention		
Implementation			Bay ① 5.25", 1.6" high, access, standard optical		
Memory	3GB, 4GB, 6GB, or 8GB std , 8GB max ⁸ , dual-channel capable, PC3-8500 1066MHz DDR3 , non-parity, four 240-pin DIMM sockets		Bay ② 5.25", 1.6" high, access, open		
Graphics	<i>Some:</i> Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G43, uses main memory, DirectX® 10, one 15-pin analog VGA DB-15 connector <i>Some:</i> ATI™ Radeon™ HD 4350 , PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD, VGA, DVI-I, HDCP-compliant <i>Some:</i> ATI™ Radeon™ HD 4650 , PCI Express® x16, 1GB memory, DirectX® 10, ATI Avivo™ HD, VGA, HDMI, DisplayPort, HDCP-compliant		Bay ③ 3.0", 1" high, access, 16-in-1 media reader		
SATA disk	320GB, 640GB, or 1TB SATA 3Gb/s, 7200 rpm		Bay ④ 3.5", 1" high, no access, standard disk		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, RAID 0 support		Bay ⑤ 3.5", 1" high, no access, optional disk		
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		Slot 1: half-length,full-height, PCI Express x16 Ver 2.0 **		
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, DVD and CD recordable		Slot 2: half-length,full-height, PCI Express x1 Ver 2.0 *		
SATA cables	Two SATA cables (each 1-drop to device), five SATA connectors		Slot 3: half-length,full-height, PCI Express x1 Ver 2.0		
EIDE controller	None		Slot 4: half-length,full-height, 32-bit PCI Ver 2.3		
Diskette drive	None		* Wireless adapter in slot in some models		
Media reader	16-in-1 media reader, internal USB 2.0		** Graphics adapter in slot in some models		
Chipset	Intel G43 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 RAID [ICH10R] (SATA 3.0Gb/s with RAID 0 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5147-NW Super I/O				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, one serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), <i>HD 4650 models:</i> monitor (VGA DB-15, HDMI, DisplayPort) <i>HD 4350 models:</i> monitor (VGA DB-15, DVI-I) <i>Others:</i> monitor (VGA DB-15)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)				
Audio	High Definition (HD) audio, ALC662 codec				
External speakers	None				
Internal speaker	None				
Wireless	<i>Some:</i> 11b/g wireless ⁴ , Broadcom BCM4312, PCIe x1 adapter				
Ethernet	10/100 ethernet on planar, Realtek® RTL8102E				
Modem	None				
Security chip	None				
TV tuner	<i>Some:</i> Hybrid tuner, support analog (NTSC) and digital (ATSC) signal „PCIe x 1		Limited Warranty¹ ➤ 1-year parts and labor ➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ➤ Service upgrade options (in eligible locations):⁹ <ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551) ➤ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686		
Remote control	<i>Some:</i> Philips® Win7 MCE remote control (40-button), IR receiver via USB				
Camera	None				
Keyboard	Full-size keyboard (PS/2 connector), Fn keys, black				
Mouse	Optical Wheel Mouse (USB connector), 1000 dpi, black				
Power supply	280 watts, universal, manual switch				
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Home Premium 64 Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• McAfee VirusScan® Plus (30 days of virus definitions)• Lenovo Power Dial• Lenovo Healthcare Software• Corel® WinDVD® (Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)					

See footnotes for important warranty information
 US models announced October 22, 2009

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Type-model	Slot x bay	Processor	GHz	Memory ⁸	DIMM capacity	Media reader	SATA disk	SATA optical	Integrated graphics	TV tuner	Remote control	802.11 wireless	Win 7 preload	Avail date
0890-1BU	4x5	Athlon II X2 215	2.70	4GB	(2, 2)	16-in-1	320GB ²	DVD±RW	Radeon 3000	None	None	None	Prem 64	Mar 10
0890-1AU	4x5	Phenom II X4 810	2.60	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	Radeon 3000	None	None	None	Prem 64	Mar 10

- **Power control switch on front to adjust power and energy for three modes (cool, auto, and turbo)**
- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

Processor	AMD® Athlon™ II X2 Processor 215 with dual-core , 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, integrated DDR3 memory controller, and 1MB L2 cache (512KB per core) AMD Phenom™ II X4 Processor 810 with quad-core , 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, integrated DDR3 memory controller, 2MB L2 cache (512KB per core), and 4MB shared L3 cache Processor in Socket AM3	Tower <ul style="list-style-type: none">• Black bezel• 7.09" W X 17.32" D X 15.35" H• 180mm W X 440mm D X 390mm H• 24.6 lb (11.2 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention
Implementation		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk
Memory	4GB or 6GB std , 8GB max ⁸ , dual-channel capable, PC3-8500 1066MHz DDR3 , non-parity, four 240-pin DIMM sockets	Slot 1: half-length, full-height, PCI Express x16 Ver 2.0 Slot 2: half-length, full-height, PCI Express x1 Ver 2.0 Slot 3: half-length, full-height, PCI Express x1 Ver 2.0 Slot 4: half-length, full-height, 32-bit PCI Ver 2.3
Graphics	ATI™ Radeon™ 3000 , integrated graphics in 760G, uses main memory, DirectX® 10, ATI Avivo™, SurroundView™, one analog VGA DB-15 connector	
SATA disk	320GB or 640GB SATA 3Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, RAID 0 support	
SATA DVD±RW	Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Blu-ray™	None	
SATA cables	Two SATA cables (each 1-drop to device), five SATA connectors	
EIDE controller	None	
Diskette drive	None	
Media reader	16-in-1 media reader, internal USB 2.0	
Chipset	AMD 760G Chipset with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, one serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) audio, ALC662 codec	
External speakers	None	
Internal speaker	None	
Wireless	None	
Ethernet	10/100 ethernet on planar, Marvell® 88E8040	
Modem	None	
Security chip	None	
TV tuner	None	
Remote control	None	
Camera	None	
Keyboard	Full-size keyboard (PS/2 connector), Fn keys, black	
Mouse	Optical Wheel Mouse (USB connector), 1000 dpi, black	
Power supply	280 watts, universal, manual switch	
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Home Premium 64 Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo Power Dial• Lenovo Healthcare Software• Windows Live™ Essential• Microsoft® Office 2007 Trial (60-day)• Roxio® BackOnTrack™• CyberLink Power2Go (DVD±RW)		
		Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 2-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1550)• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)• 1-year Post warranty, Onsite Repair 9x5 Next Business Day (78Y1557)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686

See footnotes for important warranty information
US models announced March 24, 2010

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(TNA1-2) March 2010

Type-model	Slot x bay	Pro-processor	GHz	L2 cache	Cores	Memory ⁸	DIMM capacity	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Win 7 preload	Avail date
3019-1AU	4x5	i3-530	2.93	4MB	2	6GB	(2, 2, 2)	16-in-1	640GB ²	DVD±RW	Intel HD				Prem 64	Jan 10
3019-1BU	4x5	i5-750	2.66	8MB	4	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GF 310	TV	Remote	11b/g ¹¹	Prem 64	Jan 10
3019-1CU	4x5	i7-860	2.80	8MB	4	8GB	(2, 2, 2, 2)	16-in-1	1TB	Blu-ray	HD4650	TV	Remote	11b/g	Prem 64	Jan 10

- **Power control switch on front to adjust power and energy for three modes (cool, auto, and turbo)**
- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

Processor	Intel® Core™ i3 Processor i3-530 with dual-core , Intel 64, Hyper-Threading Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or Intel Core i5 Processor i5-750 with quad-core , Intel 64, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache or Intel Core i7 Processor i7-860 with quad-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology (up to 3.46 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket	Tower <ul style="list-style-type: none">• Black bezel• 7.09" W X 17.32" D X 15.35" H• 180mm W X 440mm D X 390mm H• 24.6 lb (11.2 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention
Implementation		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk
Memory	6GB or 8GB std. , 8GB max ⁸ , dual-channel capable, PC3-8500 1066MHz DDR3 , non-parity, four 240-pin DIMM sockets	Slot 1: half-length, full-height, PCI Express x16 Ver 2.0 ** Slot 2: half-length, full-height, PCI Express x1 Ver 2.0 * Slot 3: half-length, full-height, PCI Express x1 Ver 2.0 * Slot 4: half-length, full-height, 32-bit PCI Ver 2.3 * Wireless adapter or TV tuner in slot in some models ** Graphics adapter in slot in some models
Graphics	<i>Some:</i> Intel HD Graphics , integrated graphics in processor, uses main memory, DirectX® 10, one 15-pin analog VGA DB-15 connector, one HDMI connector, HDCP <i>Some:</i> NVIDIA® GeForce® 310 , PCI Express® x16, 512MB , DirectX 10.1, NVIDIA PureVideo®, NVIDIA CUDA™, one analog VGA DB-15 connector, one HDMI connector, HDCP <i>Some:</i> ATI™ Radeon™ HD 4650 , PCI Express x16, 1GB memory, DirectX® 10.1, ATI Avivo™ HD, one analog VGA DB-15 connector, one HDMI connector, one DisplayPort™ connector, HDCP	
SATA disk	640GB or 1TB , SATA 3Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID 0 support	
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, DVD and CD recordable	
SATA cables	Two SATA cables (each 1-drop to device), five SATA connectors	
EIDE controller	None	
Diskette drive	None	
Media reader	16-in-1 media reader, internal USB 2.0	
Chipset	Intel H57 Express Chipset	
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)	
Rear ports	Six USB 2.0, keyboard (PS/2), ethernet (RJ-45), <i>HD4650 models:</i> VGA DB-15, HDMI, and DisplayPort <i>Others:</i> VGA DB-15 and HDMI	
Rear audio ports	Line-in (3.5mm), line-out (3.5mm), microphone-in (3.5mm), S/PDIF-out	
Audio	High Definition (HD) audio, ALC888S codec	
External speakers	None	
Internal speaker	None	
Wireless	<i>Some:</i> 11b/g wireless ⁴ , Broadcom BCM4312, PCIe x1 adapter	
Ethernet	Gigabit ethernet on planar, Intel 82578DC	
Modem	None	
Security chip	None	
TV tuner	<i>Some:</i> Hybrid tuner, support analog (NTSC) and digital (ATSC) signal, PCIe x 1	
Remote control	<i>Some:</i> Philips® Win7 MCE remote control (40-button), IR receiver via USB	
Camera	None	
Keyboard	Full-size keyboard (PS/2 connector), Fn keys, black	
Mouse	Optical Wheel Mouse (USB connector), 1000 dpi, black	
Power supply	280 watts, universal, manual switch	
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Home Premium 64 Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• McAfee® VirusScan® Plus (60 days of virus definitions)• Lenovo Power Dial• Lenovo Healthcare Software• Corel® WinDVD® (Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)		Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU)parts only (with limited onsite service for selected parts³, 8 am - 5 pm)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 2-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1550)• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686



Limited Warranty¹

- ≈ **1-year parts and labor**
- ≈ **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm)**
- ≈ **Service upgrade options (in eligible locations):⁹**
 - **2-year Lenovo Onsite Repair 9x5 Next Business Day** (78Y1550)
 - **3-year Lenovo Onsite Repair 9x5 Next Business Day** (78Y1551)
- ≈ **24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686**

See footnotes for important warranty information
 US models announced February 3, 2010

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- **Power control switch on front to adjust power and energy for three modes (cool, auto, and turbo)**
- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

ideacentre



Lenovo IdeaCentre A300



Lenovo IdeaCentre A300



Lenovo IdeaCentre A300



Lenovo IdeaCentre A300



Lenovo IdeaCentre A300



Lenovo IdeaCentre A300
Wireless keyboard and mouse

Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	Graphics	SATA disk	External optical	PCIe Mini Card 802.11	TV tuner	Remote control	Bluetooth	KBD/ Mouse	Win7 preload	Avail date
4018-1DU	T4400	2.20	3GB	21.5" WUXGA	0.3M	GMA 4500MHD	320GB ⁸	None	11b/g/n ²⁸		None	Bluetooth	BT/BT	Prem 64	Mar 10
4018-1EU	T6600	2.20	4GB	21.5" WUXGA	0.3M	GMA 4500MHD	500GB	None	11b/g/n	TV	None	Bluetooth	BT/BT	Prem 64	Mar 10

- **All-In-One design with 21.5" Full HD 16:9 widescreen, glossy display**
- **(Selected models) Integrated TV tuner**
- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

Processor	Intel® Pentium® Processor T4400 with dual-core , 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6600 with dual-core , 800MHz system bus, and 2MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Media Show• Lenovo CamSuite• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Windows Live™ Essential• Microsoft® Office 2007 Trial (60-day)
Memory	3GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available	
External DVD±RW	None	
SATA disk	320GB or 500GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
Widescreen display	21.5" (546.1mm) WUXGA (1920x1080) TFT color, VibrantView (glossy), CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, frameless screen	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, with mono microphone	120-watt AC adapter RoHS-compliant
Controls	Touch-sensitive buttons for brightness control, Novo Vision (internet / video / text), mode switch (panel off / PC / HDMI IN)	
Graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , integrated graphics in GM45, uses main memory, DirectX® 10	
Chipset	Mobile Intel GM45 Express Chipset , ICH9M I/O Controller Hub	
Multicard reader	8-in-1 reader (MultiMedia Card, RS-MMC, Memory Stick, Memory Stick PRO™, Memory Stick Duo, Secure Digital Card, miniSD, xD-Picture Card™)	
Ports	<i>Rear:</i> Two USB 2.0, ethernet (RJ-45), TV antenna connector on some models; IEEE 1394 FireWire 400 (4-pin connector), HDMI in/out <i>Side:</i> Two USB 2.0	
PCIe Mini Card	Two PCIe Mini Card slots	
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, Broadcom® chip or Atheros chip	
TV tuner	<i>Some:</i> AverMedia® Hybrid tuner, support analog and digital signal, PCIe Mini Card	
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator	
Modem	None	Limited Warranty ¹ ⇒ 1-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm) ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 2-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1552)• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1553) ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686
Ethernet	Gigabit ethernet on planar, Realtek® RTL8111DL	
Audio support	High Definition (HD) Audio, Realtek ALC272 codec / stereo speakers (2 watt x 2) / mono microphone, microphone input jack (3.5 mm), headphone jack / S/PDIF-out (3.5 mm) Power-on password, supervisor password, security lockhole	
Security	Wireless keyboard via Bluetooth®, 6-row, multimedia Fn keys, white	
Keyboard	Wireless laser mouse via Bluetooth, 1200 dpi, white	
Mouse	None	
Remote control	None	
Dimensions ³	<i>With base (WxHxD):</i> 20.63" x 15.59" x 8.27"; 524mm x 396mm x 210mm <i>Screen depth:</i> 0.73"; 18.5mm	
Weight ²	22.9 lb (10.4 kg)	
Chassis	White color, ABS plastic	
View adjustments	<i>Tilt:</i> 18° back, 3° forward; <i>swivel:</i> +/-10°	

See footnotes for important warranty information
US models announced March 11, 2010

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Limited Warranty¹

- ⇒ **1-year parts and labor**
- ⇒ **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm)**
- ⇒ **Service upgrade options (in eligible locations):⁹**
 - **2-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1552)**
 - **3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1553)**
- ⇒ **24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686**

Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	Graphics	SATA disk	External optical	PCIe Mini Card 802.11	TV tuner	Remote control	Bluetooth	KBD/ Mouse	Win7 preload	Avail date
4018-1MU	T4400	2.20	2GB	21.5" WUXGA	0.3M	GMA 4500MHD	320GB ⁸	None	11b/g/n ²⁸	TV	None	Bluetooth	BT/BT	Prem 64	Mar 10
4018-1NU	T4400	2.20	4GB	21.5" WUXGA	0.3M	GMA 4500MHD	500GB	None	11b/g/n	TV	None	Bluetooth	BT/BT	Prem 64	Mar 10
4018-1OU	T6600	2.20	4GB	21.5" WUXGA	0.3M	GMA 4500MHD	500GB	None	11b/g/n	TV	None	Bluetooth	BT/BT	Prem 64	Mar 10

- **All-In-One design with 21.5" Full HD 16:9 widescreen, glossy display**
- **(Selected models) Integrated TV tuner**
- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

Processor	Intel® Pentium® Processor T4400 with dual-core , 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6600 with dual-core , 800MHz system bus, and 2MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Media Show• Lenovo CamSuite• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Windows Live™ Essential• Microsoft® Office 2007 Trial (60-day)
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available <i>Italics:</i> standard memory in both sockets; no sockets available	
External DVD±RW	None	
SATA disk	320GB or 500GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
Widescreen display	21.5" (546.1mm) WUXGA (1920x1080) TFT color, VibrantView (glossy), CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, frameless screen	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, with mono microphone	
Controls	Touch-sensitive buttons for brightness control, Novo Vision (internet / video / text), mode switch (panel off / PC / HDMI IN)	
Graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , integrated graphics in GM45, uses main memory, DirectX® 10	
Chipset	Mobile Intel GM45 Express Chipset , ICH9M I/O Controller Hub	
Multicard reader	8-in-1 reader (MultiMedia Card, RS-MMC, Memory Stick, Memory Stick PRO™, Memory Stick Duo, Secure Digital Card, miniSD, xD-Picture Card™)	
Ports	<i>Rear:</i> Two USB 2.0, ethernet (RJ-45), TV antenna connector on some models; IEEE 1394 FireWire 400 (4-pin connector), HDMI in/out <i>Side:</i> Two USB 2.0	
PCIe Mini Card	Two PCIe Mini Card slots	120-watt AC adapter RoHS-compliant
11b/g/n ²⁸	<i>Some:</i> 11b/g/n wireless ⁴ , PCIe Mini Card, Broadcom® chip or Atheros chip	
TV tuner	<i>Some:</i> AverMedia® Hybrid tuner, support analog and digital signal, PCIe Mini Card	
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator	
Modem	None	
Ethernet	Gigabit ethernet on planar, Realtek® RTL8111DL	
Audio support	High Definition (HD) Audio, Realtek ALC272 codec / stereo speakers (2 watt x 2) / mono microphone, microphone input jack (3.5 mm), headphone jack / S/PDIF-out (3.5 mm)	
Security	Power-on password, supervisor password, security lockhole	
Keyboard	Wireless keyboard via Bluetooth®, 6-row, multimedia Fn keys, white	
Mouse	Wireless laser mouse via Bluetooth, 1200 dpi, white	
Remote control	None	
Dimensions ³	<i>With base (WxHxD):</i> 20.63" x 15.59" x 8.27"; 524mm x 396mm x 210mm <i>Screen depth:</i> 0.73"; 18.5mm	Limited Warranty ¹ ⇨ 1-year parts and labor ⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm) ⇨ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 2-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1552)• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1553) ⇨ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686
Weight ²	22.9 lb (10.4 kg)	
Chassis	White color, ABS plastic	
View adjustments	<i>Tilt:</i> 18° back, 3° forward; <i>swivel:</i> +/-10°	

See footnotes for important warranty information
US models announced February 5, 2010

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Lenovo IdeaCentre A600
(Remote control and wireless
keyboard/mouse on select models)



Lenovo IdeaCentre A600
(Remote control and wireless
keyboard/mouse on select models)



Lenovo IdeaCentre A600



Lenovo IdeaCentre A600



Lenovo IdeaCentre A600



Lenovo IdeaCentre A600

Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	Graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	TV tuner	Remote control	Microphone	Bluetooth	KBD/Mouse	Vista preload	Availability
3011-2AU	T4200	2.00	2GB	21.5" WUXGA	1.3	GMA	320GB ⁸	DVD±RW	11b/g ²⁸					USB	Prem 64	Apr 09
3011-2BU	T4200	2.00	3GB	21.5" WUXGA	1.3	GMA	500GB	DVD±RW	Intel 5100					USB	Prem 64	Apr 09
3011-2CU	T4200	2.00	4GB	21.5" WUXGA	1.3	GMA	640GB	DVD±RW	Intel 5100					USB	Prem 64	Apr 09
3011-3AU	T6400	2.00	3GB	21.5" WUXGA	1.3	GMA	640GB	DVD±RW	* Intel 5100					USB	Prem 64	Apr 09
3011-3CU	T6400	2.00	4GB	21.5" WUXGA	2.0	HD 3650	1TB	DVD±RW	* Intel 5100	TV	Remote	Array	Blue	Wireless	Prem 64	Apr 09
3011-4AU	P7450	2.13	4GB	21.5" WUXGA	2.0	HD 3650	1TB	BD player	* Intel 5100			Array	Blue	USB	Prem 64	Apr 09
3011-4BU	P7450	2.13	4GB	21.5" WUXGA	2.0	HD 3650	1TB	BD player	* Intel 5100	TV	4-in-1	Array	Blue	Wireless	Prem 64	Apr 09
3011-3DU	T6400	2.00	3GB	21.5" WUXGA	1.3	GMA	500GB	DVD±RW	* Intel 5100			Mono		Wireless	Prem 32	Apr 09
3011-3HU	T6400	2.00	4GB	21.5" WUXGA	2.0	HD 3650	640GB	DVD±RW	* Intel 5100	TV	4-in-1	Array	Blue	Wireless	Prem 64	Apr 09

- **All-In-One design with 21.5" Full HD 16:9 widescreen, glossy display**
- **(Selected models) Integrated TV tuner**
- **(Selected models) 4-in-1 remote control acts as a motion game controller (requires game support), VOIP handset, Vista Media Center remote and air mouse**
- **Integrated camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Home Theater™ premium audio system with two speakers and one subwoofer**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Pentium® processor T4200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7450 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows® Vista® Home Premium 32 - Some: Genuine Windows Vista Home Premium 64 ◇ Vista Premium logo
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications ¹⁴ • Lenovo® OneKey Recovery • Driver and Application Installation • Lenovo Recovery Disk Maker • Lenovo Healthcare Software • VeriFace™ • Media Show • Trend Micro™ PC-cillin™ Internet Security 2008 • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Cyberlink Power2Go (DVD±RW, BD player) • Corel® WinDVD® (BD player)
SATA DVD±RW	Some: DVD burner, dual-layer support, fixed, not removable, 12.7mm, slot-in	
SATA Blu-ray™	Some: Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD recordable, not removable, 12.7mm high, slot-in	
SATA disk	320GB, 500GB, 640GB, or 1TB, SATA 3.0Gb/s, 3.5" wide, 7200 rpm	
Widescreen display	21.5" (546.1mm) WUXGA (1920x1080) TFT color, VibrantView (glossy), CCFL backlight, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio, frameless screen	
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus, with mono microphone Some: camera on top of screen, 2.0-megapixel, fixed focus, with dual array microphone	
Controls	Touch-sensitive buttons for brightness, display on/off, and optical disk drive eject	
Graphics	Some: Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), integrated graphics in GM45, uses main memory, DirectX® 10 Some: ATI™ Mobility Radeon™ HD 3650, PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express 1.1, PCI 2.3, ethernet MAC)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Rear: Four USB 2.0, ethernet (RJ-45), TV antenna connector on some models; Left: Two USB 2.0, IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express	Two Mini PCI Express slots	Available at these retailers • lenovo.com • Fry's
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wi-Fi Link 5100, 1x2 (Shirley Peak)	
11b/g ²⁸	Some: 11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312	
TV tuner	Some: AverMedia® Hybrid tuner, support analog and digital signal, Mini PCIe adapter	
Bluetooth™	Some: Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator	Some: 130-watt (GMA graphics) AC adapter
Modem	None	Some: 150-watt (ATI graphics) AC adapter
Ethernet	Gigabit ethernet on planar, Broadcom BCM5784	RoHS-compliant
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / two speakers (3 watt) and subwoofer (8 watt), Dolby Home Theater Speaker System / mono microphone or dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, hard disk password, supervisor password	Limited Warranty¹² ⇒ 1-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ Service upgrade options (in eligible locations): ⁹ • 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1553) ⇒ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 877-453-6686
Keyboard	Some: Wireless RF 2.4 GHz keyboard with touch pad, 6-row, 84-key, touch-sensitive multimedia keys and shortcut keys Some: USB full-size keyboard with USB hub (two USB ports)	
Mouse	Some: Wireless RF 2.4 GHz Laser Wheel Mouse, 800/1600 dpi (user switchable) Some: USB Optical Wheel Mouse	
Remote control	Some: Vista MCE remote control (40-button), via IR Some: 4-in-1 remote control, via bluetooth, acts as motion game controller (requires games* support), VOIP headset, Vista MCE remote control, and air mouse * Motion games CD included in 4-in-1 remote control models (requires installation)	
Dimensions ³	(WxHxD): 20.47" x 18.22" x 1.06" to 2.36"; 520mm x 463mm x 27 to 60mm	
Weight ²	27.7 lb (12.6 kg)	
Chassis	Black color, ABS plastic	
Stand	Tilt stand (15° back, 5° forward)	

See footnotes for important warranty information

US models announced April 22, 2009;
previous models on April 07, 2009

* Intel Centrino® processor technology

✦ Intel Centrino 2 processor technology

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Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	Graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	TV tuner	Remote control	Micro- phone	Blue- tooth	KBD/ Mouse	Vista preload	Avail date
3011-3LU	T6500	2.10	4GB	21.5" WUXGA	1.3	GMA	640GB ⁸	DVD±RW	* Intel 5100 ²⁸					USB	Prem 64	Sep 09
3011-3RU	T6500	2.10	4GB	21.5" WUXGA	2.0	HD 4650	500GB	DVD±RW	* Intel 5100	TV	Remote	Array	Blue	USB	Prem 64	Sep 09
3011-3UU	T6500	2.10	4GB	21.5" WUXGA	2.0	HD 4650	640GB	DVD±RW	* Intel 5100	TV	4-in-1	Array	Blue	Wireless	Prem 64	Sep 09
3011-4EU	P7350	2.00	4GB	21.5" WUXGA	2.0	HD 4650	1TB	BD player	† Intel 5100	TV	4-in-1	Array	Blue	Wireless	Prem 64	Sep 09

- **All-In-One design with 21.5" Full HD 16:9 widescreen, glossy display**
- **(Selected models) Integrated TV tuner**
- **(Selected models) 4-in-1 remote control acts as a motion game controller (requires game support), VOIP handset, Vista Media Center remote and air mouse**
- **Integrated camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face**
- **Dolby® Home Theater™ premium audio system with two speakers and one subwoofer**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Core™ 2 Duo processor T6500 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7350 with dual-core , Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ <ul style="list-style-type: none">Genuine Windows® Vista® Home Premium 64✧ Vista Premium logo Preloaded applications ¹⁴ <ul style="list-style-type: none">Lenovo® OneKey RecoveryDriver and Application InstallationLenovo Recovery Disk MakerLenovo Healthcare SoftwareVeriFace™Media ShowTrend Micro™ PC-cillin™ Internet Security 2008Windows Live™ ToolbarMicrosoft® Office 2007 Trial (60-day)Cyberlink Power2Go (DVD±RW, BD player)Corel® WinDVD® (BD player)
Memory	4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available	
SATA DVD±RW SATA Blu-ray™	<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 12.7mm, slot-in <i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD recordable, not removable, 12.7mm high, slot-in	
SATA disk	500GB , 640GB , or 1TB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm	
Widescreen display Camera	21.5" (546.1mm) WUXGA (1920x1080) TFT color, VibrantView (glossy), CCFL backlight, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio, frameless screen <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, with mono microphone <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus, with dual array microphone	
Controls	Touch-sensitive buttons for brightness, display on/off, and optical disk drive eject	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , integrated graphics in GM45, uses main memory, DirectX® 10 <i>Some:</i> ATI™ Mobility Radeon™ HD 4650 , PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express 1.1, PCI 2.3, ethernet MAC)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), TV antenna connector on some models; <i>Left:</i> Two USB 2.0, IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5100 ²⁸ TV tuner Bluetooth™ Modem Ethernet Audio support	Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> AverMedia® Hybrid tuner, support analog and digital signal, Mini PCIe adapter <i>Some:</i> Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator None Gigabit ethernet on planar, Broadcom BCM5784 High Definition (HD) Audio, RealTek® ALC272 codec / two speakers (3 watt) and subwoofer (8 watt), Dolby Home Theater Speaker System / mono microphone or dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	Available at these retailers <ul style="list-style-type: none">lenovo.com
Security	Power-on password, hard disk password, supervisor password	<i>Some:</i> 130-watt (GMA graphics) AC adapter <i>Some:</i> 150-watt (ATI graphics) AC adapter RoHS-compliant
Keyboard	<i>Some:</i> Wireless RF 2.4 GHz keyboard with touch pad, 6-row, 84-key, touch-sensitive multimedia keys and shortcut keys <i>Some:</i> USB full-size keyboard with USB hub (two USB ports)	Limited Warranty ¹² <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1553)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686
Mouse	<i>Some:</i> Wireless RF 2.4 GHz Laser Wheel Mouse, 800/1600 dpi (user switchable) <i>Some:</i> USB Optical Wheel Mouse	
Remote control	<i>Some:</i> Vista MCE remote control (40-button), via IR <i>Some:</i> 4-in-1 remote control, via bluetooth, acts as motion game controller (requires games* support), VOIP headset, Vista MCE remote control, and air mouse * Motion games CD included in 4-in-1 remote control models (requires installation)	
Dimensions ³ Weight ² Chassis Stand	(WxHxD): 20.47" x 18.22" x 1.06" to 2.36"; 520mm x 463mm x 27 to 60mm 27.7 lb (12.6 kg) Black color, ABS plastic Tilt stand (15° back, 5° forward)	

See footnotes for important warranty information
US models announced September 10, 2009

* Intel Centrino® processor technology
† Intel Centrino 2 processor technology

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(BL1-2) September 2009

Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	Graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	TV tuner	Remote control	Micro- phone	Blue- tooth	KBD/ Mouse	Win7 preload	Avail date
3011-6CU	T4300	2.10	2GB	21.5" WUXGA	1.3	GMA	320GB ⁸	DVD±RW	Intel 5100 ²⁸				Mono	USB	Prem 64	Oct 09
3011-6DU	T4300	2.10	4GB	21.5" WUXGA	2.0	HD 4650	320GB	DVD±RW	11b/g	TV			Array	Blue USB	Prem 64	Oct 09
3011-CGU	T6600	2.20	4GB	21.5" WUXGA	2.0	HD 4650	640GB	DVD±RW	* Intel 5100	TV 4-in-1	Array	Blue	Wireless	Prem 64	Oct 09	
3011-CJU	T6600	2.20	3GB	21.5" WUXGA	2.0	HD 4650	500GB	DVD±RW	* Intel 5100	TV Remote	Array	Blue	USB	Prem 64	Oct 09	
3011-CKU	T6600	2.20	4GB	21.5" WUXGA	2.0	HD 4650	500GB	DVD±RW	* Intel 5100	TV Remote	Array	Blue	Wireless	Prem 64	Oct 09	
3011-4LU	P7550	2.26	4GB	21.5" WUXGA	2.0	HD 4650	1TB	BD player	Intel 5100	TV 4-in-1	Array	Blue	Wireless	Prem 64	Oct 09	

- **All-In-One design with 21.5" Full HD 16:9 widescreen, glossy display**
- **(Seleted models) Integrated TV tuner**
- **(Seleted models) 4-in-1 remote control acts as a motion game controller (requires game support), VOIP handset, Vista Media Center remote and air mouse**
- **Dolby® Home Theater™ premium audio system with two speakers and one subwoofer**
- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

Processor	Intel® Pentium® Processor T4300 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6600 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7550 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications¹⁴ (only some listed) • Lenovo® OneKey Recovery • Lenovo Healthcare Software • Media Show • McAfee VirusScan® Plus 2009 (30 days of virus definitions) • Cyberlink Power2Go (DVD±RW, BD player) • Corel® WinDVD® (BD player)					
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available <i>Italics:</i> standard memory in both sockets; no sockets available															
SATA DVD±RW	<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 12.7mm, slot-in															
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD recordable, not removable, 12.7mm high, slot-in															
SATA disk	320GB, 500GB, 640GB, or 1TB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm															
Widescreen display	21.5" (546.1mm) WUXGA (1920x1080) TFT color, VibrantView (glossy), CCFL backlight, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio, frameless screen															
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, with mono microphone <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus, with dual array microphone															
Controls	Touch-sensitive buttons for brightness, display on/off, and optical disk drive eject															
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , integrated graphics in GM45, uses main memory, DirectX® 10 <i>Some:</i> ATI™ Mobility Radeon™ HD 4650 , PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express 1.1, PCI 2.3, ethernet MAC)															
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)															
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), TV antenna connector on some models; <i>Left:</i> Two USB 2.0, IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express	Two Mini PCI Express slots															
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)															
11b/g ¹¹	<i>Some:</i> 11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312															
TV tuner	<i>Some:</i> AverMedia® Hybrid tuner, support analog and digital signal, Mini PCIe adapter															
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator															
Modem	None															
Ethernet	Gigabit ethernet on planar, Broadcom BCM5784															
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / two speakers (3 watt) and subwoofer (8 watt), Dolby Home Theater Speaker System / mono microphone or dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)															
Security	Power-on password, hard disk password, supervisor password															
Keyboard	<i>Some:</i> Wireless RF 2.4 GHz keyboard with touch pad, 6-row, 84-key, touch-sensitive multimedia keys and shortcut keys <i>Some:</i> USB full-size keyboard with USB hub (two USB ports)															
Mouse	<i>Some:</i> Wireless RF 2.4 GHz Laser Wheel Mouse, 800/1600 dpi (user switchable) <i>Some:</i> USB Optical Wheel Mouse															
Remote control	<i>Some:</i> MCE remote control (40-button), via IR <i>Some:</i> 4-in-1 remote control, via bluetooth, acts as motion game controller (requires games support), VOIP headset, MCE remote control, and air mouse															
Dimensions ³	(WxHxD): 20.47" x 18.22" x 1.06" to 2.36"; 520mm x 463mm x 27 to 60mm															
Weight ²	27.7 lb (12.6 kg)															
Chassis	Black color, ABS plastic															
Stand	Tilt stand (15° back, 5° forward)															

See footnotes for important warranty information
US models announced October 23, 2009

* Intel Centrino® processor technology
✦ Intel Centrino 2 processor technology

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Some: 130-watt (GMA graphics) AC adapter
Some: 150-watt (ATI graphics) AC adapter
RoHS-compliant

Limited Warranty¹²

⇒ **1-year parts and labor**
⇒ **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)**
⇒ **Service upgrade options (in eligible locations):⁹**
• **3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1553)**
⇒ **24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686**



Lenovo IdeaCentre B500
Bluetooth keyboard and mouse on some models



Lenovo IdeaCentre B500
AV IN and TV IN on some models



Lenovo IdeaCentre B500



Lenovo IdeaCentre B500



Lenovo IdeaCentre B500



Lenovo IdeaCentre B500

Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	Graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	TV tuner	Remote control	Keyboard/Mouse	Win7 preload	Avail date
0887-1FU	E5400	2.70	2G	23" WUXGA	0.3M	GT 240M 1G	320GB ⁸	DVD±RW	11b/g/n ²⁸	TV	IR remote	BT/BT	Prem 64	Dec 09
0887-2GU	E7500	2.93	4G	23" WUXGA	0.3M	GT 240M 1G	500GB	DVD±RW	11b/g/n	TV	IR remote	BT/BT	Prem 64	Dec 09
0887-2BU	E7500	2.93	4G	23" WUXGA	0.3M	GT 240M 1G	1TB	DVD±RW	11b/g/n	TV	4-in-1	BT/BT	Prem 64	Dec 09
0887-3AU	Q8400S	2.66	4G	23" WUXGA	0.3M	GTS 250M 1G	1TB	BD player	11b/g/n	TV	4-in-1	BT/BT	Prem 64	Dec 09

- **All-In-One design with 23" Full HD 16:9 widescreen, glossy display**
- **(Selected models) Integrated TV tuner**
- **(Selected models) 4-in-1 remote control acts as a motion game controller (requires game support), VOIP handset, Media Center remote and air mouse**
- **JBL® stereo speakers**

Processor	Intel® Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q8400S with quad-core, 1333MHz system bus, and 4MB L2 cache Processor in LGA775 socket										Preloaded operating system²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications¹⁴ (only some listed) • Lenovo® Rescue System • Media Show • McAfee® VirusScan® Plus 2009 (30 days of virus definitions) • Cyberlink Power2Go (DVD±RW, BD player) • Corel® WinDVD® (BD player)			
Implementation	Processor in LGA775 socket													
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available <i>Italics:</i> standard memory in both sockets; no sockets available													
SATA DVD±RW SATA Blu-ray™	<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in <i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD recordable, not removable, 12.7mm high, tray-in													
SATA disk	320GB , 500GB , or 1TB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm													
Widescreen display	23.0" (584.2mm) WUXGA (1920x1080) TFT color, VibrantView (glossy), CCFL backlight, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio													
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, with microphone													
Controls	Touch-sensitive buttons for LED light on/off, volume up/down, brightness up/down, display on/off													
Graphics	<i>Some:</i> NVIDIA® GeForce® GT 240M , PCI Express® x16, 1GB memory; <i>Some:</i> NVIDIA GeForce GTS 250M , PCI Express x16, 1GB memory													
Chipset	Intel G41 Express Chipset ; I/O Controller Hub 7 (ICH7)													
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)													
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), TV IN and AV IN on some models; <i>Side:</i> Two USB 2.0, microphone input jack (3.5 mm), headphone jack (3.5 mm)													
Mini PCI Express 11b/g/n ²⁸	Two Mini PCI Express slots										Available at lenovo.com			
TV tuner	11b/g/n wireless ⁴ , Mini PCIe adapter, Broadcom® BCM43225													
Bluetooth™	<i>Some:</i> AverMedia® Hybrid tuner, support analog and digital signal, Mini PCIe adapter										RoHS-compliant			
Modem	Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH7													
Ethernet	None													
Audio support	10/100 ethernet on planar, RealTek® RTL8103EL High Definition (HD) Audio, RealTek ALC662 codec / two JBL® stereo speakers (5 watt)													
Security	Power-on password, supervisor password													
Keyboard	Bluetooth full-size keyboard, 6-row, 104-key, black													
Mouse	Bluetooth Laser Wheel Mouse, black													
Remote control	<i>Some:</i> MCE remote control (40-button), via IR <i>Some:</i> 4-in-1 remote control, via bluetooth, acts as motion game controller (requires game support), VOIP headset, MCE remote control, and air mouse													
Power supply	200 watts, universal, auto-sensing													
Dimensions ³	(WxHxD): 22.05" x 17.20" x 3.44" to 5.22"; 560mm x 437mm x 87.5 to 132.5mm													
Weight ²	22.0 lb (10 kg)													
Chassis	<i>Front:</i> black color; <i>rear:</i> silver gray color; ABS plastics													
Stand	Adjustable stand (between 8° and 35°)													

See footnotes for important warranty information
 US models announced December 2, 2009

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 (MT1-1) December 2009

Limited Warranty¹²

- ⇒ 1-year parts and labor
- ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
- ⇒ Service upgrade options (in eligible locations):⁹
 - 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1553)
- ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686

Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	Graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	TV tuner	Remote control	Keyboard/Mouse	Win7 preload	Avail date
0887-1BU	E5400	2.70	4G	23" WUXGA	0.3M	G210M 512M	500GB ⁸	DVD±RW	11b/g/n ²⁸			PS2/USB	Prem 64	Dec 09
0887-1CU	E5400	2.70	4G	23" WUXGA	0.3M	GT 240M 1G	500GB	DVD±RW	11b/g/n			BT/USB	Prem 64	Dec 09
0887-2CU	E7500	2.93	4G	23" WUXGA	0.3M	GT 240M 1G	640GB	DVD±RW	11b/g/n	TV	IR remote	BT/BT	Prem 64	Dec 09
0887-3BU	Q8400S	2.66	4G	23" WUXGA	0.3M	GTS 250M 1G	1TB	BD player	11b/g/n	TV	4-in-1	BT/BT	Prem 64	Dec 09

- **All-In-One design with 23" Full HD 16:9 widescreen, glossy display**
- **(Selected models) Integrated TV tuner**
- **(Selected models) 4-in-1 remote control acts as a motion game controller (requires game support), VOIP handset, Media Center remote and air mouse**
- **JBL® stereo speakers**

Processor	Intel® Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q8400S with quad-core, 1333MHz system bus, and 4MB L2 cache Processor in LGA775 socket										Preloaded operating system²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Lenovo® Rescue System • Media Show • McAfee® VirusScan® Plus 2009 (30 days of virus definitions) • Cyberlink Power2Go (DVD±RW, BD player) • Corel® WinDVD® (BD player) 			
Implementation														
Memory	4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available													
SATA DVD±RW	<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in													
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD recordable, not removable, 12.7mm high, tray-in													
SATA disk	500GB , 640GB , or 1TB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm													
Widescreen display	23.0" (584.2mm) WUXGA (1920x1080) TFT color, VibrantView (glossy), CCFL backlight, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio													
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, with microphone													
Controls	Touch-sensitive buttons for LED light on/off, volume up/down, brightness up/down, display on/off													
Graphics	<i>Some:</i> NVIDIA® GeForce® G210M , PCI Express® x16, 512MB memory; <i>Some:</i> NVIDIA GeForce GT 240M , PCI Express x16, 1GB memory; <i>Some:</i> NVIDIA GeForce GTS 250M , PCI Express x16, 1GB memory													
Chipset	Intel G41 Express Chipset ; I/O Controller Hub 7 (ICH7)													
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)													
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), TV IN and AV IN on some models; <i>Side:</i> Two USB 2.0, microphone input jack (3.5 mm), headphone jack (3.5 mm)													
Mini PCI Express	Two Mini PCI Express slots													
11b/g/n ²⁸	11b/g/n wireless ⁴ , Mini PCIe adapter, Broadcom® BCM43225													
TV tuner	<i>Some:</i> AverMedia® Hybrid tuner, support analog and digital signal, Mini PCIe adapter													
Bluetooth™	Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH7													
Modem	None													
Ethernet	10/100 ethernet on planar, RealTek® RTL8103EL													
Audio support	High Definition (HD) Audio, RealTek ALC662 codec / two JBL® stereo speakers (5 watt)													
Security	Power-on password, supervisor password													
Keyboard	<i>Some:</i> Bluetooth full-size keyboard, 6-row, 104-key, black													
Mouse	<i>Some:</i> Full-size keyboard (PS/2 connector), Fn keys, black													
Remote control	<i>Some:</i> Bluetooth Laser Wheel Mouse, black <i>Some:</i> Optical Wheel Mouse (USB connector), 1000 dpi, black <i>Some:</i> MCE remote control (40-button), via IR <i>Some:</i> 4-in-1 remote control, via bluetooth, acts as motion game controller (requires game support), VOIP headset, MCE remote control, and air mouse													
Power supply	200 watts, universal, auto-sensing													
Dimensions ³	(WxHxD): 22.05" x 17.20" x 3.44" to 5.22"; 560mm x 437mm x 87.5 to 132.5mm													
Weight ²	22.0 lb (10 kg)													
Chassis	<i>Front:</i> black color; <i>rear:</i> silver gray color; ABS plastics													
Stand	Adjustable stand (between 8° and 35°)													

See footnotes for important warranty information
 US models announced December 2, 2009

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RoHS-compliant
Limited Warranty¹² ⇒ 1-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ Service upgrade options (in eligible locations):⁹ <ul style="list-style-type: none"> • 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1553) ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686



Lenovo IdeaCentre Q100



Lenovo IdeaCentre Q100



Lenovo IdeaCentre Q100



Lenovo IdeaCentre Q100



Lenovo IdeaCentre Q100
(Monitor is not included)



Lenovo IdeaCentre Q100

Type-model	Processor	GHz	L2 cache	Memory ³	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Color	Blue-tooth	Preload	Avail date
3014-1CU	Atom 230	1.60	512KB	1GB	None	160GB ²	None	Mirage 3+	None	None	None	Black	None	XP Home	Sep 09
3014-1BU	Atom 230	1.60	512KB	1GB	None	160GB	None	Mirage 3+	None	None	None	Black	None	XP Home	Sep 09

- *IdeaCentre Q series provide ultimate multimedia experience for home entertainment*
- *An Ultra-slim and fashionable desktop PC (only 0.5L)*
- *Super power saving, saving up to 90% power compared to traditional desktop*
- *Ultra quiet with low power platform*
- *Basic one key system recovery function*

Processor	Intel® Atom™ processor 230 with single-core, Hyper-Threading Technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 512KB L2 cache	Tiny Desktop (0.5L) <ul style="list-style-type: none">• Black color• 6.01" W X 0.8" D X 6.8" H• 153mm W X 20mm D X 172mm H• 1.67 lb (0.76kg) including stand• No bays, no slots	
Memory	1GB std , 2GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, single-channel capable, one 200-pin SO-DIMM socket; standard memory in socket; no sockets available		
Graphics	SiS® Mirage™ 3+ Graphics Engine , integrated graphics in SiS672, uses main memory, one VGA DB-15 connector		
SATA disk	160GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	Preloaded operating system ²⁰ - Genuine Windows® XP Home Edition Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Recovery wizard• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SiS968		
SATA DVD±RW	None		
Media reader	None		
Chipset	SiS672 Northbridge / SiS968 Southbridge (SATA 3.0Gb/s, ethernet MAC, USB)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		65-watt AC adapter RoHS-compliant
Rear ports	Four USB 2.0, ethernet (RJ-45), monitor (VGA DB-15), line-out (stereo, 3.5mm)		
Audio	High Definition (HD) audio, RealTek® ALC662 codec		Limited Warranty ¹ ⇒ 1-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, often next business day response time) ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 often Next Business Day (78Y1551) ⇒ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 877-453-6686
External speakers	None		
Internal speaker	None		
Ethernet	Gigabit ethernet on planar, Realtek® RLT8111DL		
Wireless	None		
Modem	None		
Security chip	None		
11b/g ²⁸	None		
TV tuner	None		
Remote control	None		
Camera	None		
Keyboard	None		
Mouse	None		
Stand	Detachable stand (matching color with chassis)		
Mount bracket	None		

See footnotes for important warranty information
US models announced September 15, 2009

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Type-model	Processor	GHz	L2 cache	Memory ^a	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Color	Blue-tooth	VESA mount bracket	Preload	Avail date
3014-1DU	Atom 230	1.60	512KB	1GB	160GB ²	None	Mirage 3+	None	None	None	Black	None		XP Home	Dec 09
3014-1FU	Atom 230	1.60	512KB	1GB	160GB	None	Mirage 3+	None	None	None	Black	None	VESA	XP Home	Dec 09

- *IdeaCentre Q series provide ultimate multimedia experience for home entertainment*
- *An Ultra-slim and fashionable desktop PC (only 0.5L)*
- *(Select model) Attaches to the back of selected VESA-compatible monitor for more space saving*
- *Super power saving, saving up to 90% power compared to traditional desktop*
- *Ultra quiet with low power platform*
- *Basic one key system recovery function*

Processor	Intel® Atom™ processor 230 with single-core, Hyper-Threading Technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 512KB L2 cache	Tiny Desktop (0.5L) <ul style="list-style-type: none">• Black color• 6.01" W X 0.8" D X 6.8" H• 153mm W X 20mm D X 172mm H• 1.67 lb (0.76kg) including stand• No bays, no slots
Memory	1GB std , 2GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, single-channel capable, one 200-pin SO-DIMM socket; standard memory in socket; no sockets available	
Graphics	SiS® Mirage™ 3+ Graphics Engine , integrated graphics in SiS672, uses main memory, one VGA DB-15 connector	Preloaded operating system ²⁰ - Genuine Windows® XP Home Edition
SATA disk	160GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	Preloaded applications ¹⁴ (only some listed)
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SiS968	• Recovery wizard
SATA DVD±RW	None	• Driver and Application Installation
Media reader	None	• Trend Micro™ PC-cillin™ Internet Security 2008
Chipset	SiS672 Northbridge / SiS968 Southbridge (SATA 3.0Gb/s, ethernet MAC, USB)	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	65-watt AC adapter
Rear ports	Four USB 2.0, ethernet (RJ-45), monitor (VGA DB-15), line-out (stereo, 3.5mm)	RoHS-compliant
Audio	High Definition (HD) audio, RealTek® ALC662 codec	Limited Warranty ¹ ⇒ 1-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, often next business day response time) ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 often Next Business Day (78Y1551) ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period ¹ via 877-453-6686
External speakers	None	
Internal speaker	None	
Ethernet	Gigabit ethernet on planar, Realtek® RLT8111DL	
Wireless	None	
Modem	None	
Security chip	None	
11b/g ²⁸	None	
TV tuner	None	
Remote control	None	
Camera	None	
Keyboard	None	
Mouse	None	
Stand	Detachable stand (matching color with chassis)	
Mount bracket	<i>Some:</i> Mount bracket (black), meets VESA 75mm and 100mm mount standard	

See footnotes for important warranty information
 US models announced December 17, 2009

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 (NR1-3) December 2009

Type-model	Processor	GHz	L2 cache	Memory ³	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Color	Blue-tooth	Vista preload	Avail date
3016-1BU	Atom 230	1.60	512KB	2GB	None	250GB ²	None	NVIDIA ION	None	None	None	Black	None	Prem 32	Sep 09

- **IdeaCentre Q series provide ultimate multimedia experience for home entertainment**
- **An Ultra-slim and fashionable desktop PC (only 0.5L)**
- **Attaches to the back of selected VESA-compatible monitor for more space saving**
- **Super powersaving, saving up to 90% power compared to traditional desktop**
- **Ultra quiet with low power platform**
- **Support 1080p full HD multimedia playback and 3D gaming**
- **Basic one key system recovery function**

Processor	Intel® Atom™ processor 230 with single-core, Hyper-Threading technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 512KB L2 cache	Tiny Desktop (0.5L) <ul style="list-style-type: none">• Black color• 6.01" W X 0.8" D X 6.8" H• 153mm W X 20mm D X 172mm H• 1.67 lb (0.76kg) include stand• No bays, no slots
Memory	2GB std , 3GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, one 200-pin SO-DIMM socket; <i>Italics:</i> standard memory 1GB soldered to systemboard, 1GB in socket; no sockets available	
Graphics	NVIDIA® ION™ graphics processor , DirectX 10, PureVideo® HD technology, Full HD decode (1080i/p) uses main memory, one HDMI connector, HDCP-compliant	Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Home Premium 32
SATA disk	250GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Recovery wizard• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• CyberLink PowerDVD
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ION graphics processor	
SATA DVD±RW	None	
Media reader	None	
Chipset	NVIDIA® ION chipset (MCP7A-ION) , integrates all features of a modern chipset's North and South bridges into a single chip package	65-watt AC adapter RoHS-compliant
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm),	Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, often next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 often Next Business Day (78Y1551)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686
Rear ports	Four USB 2.0, ethernet (RJ-45), monitor (HDMI), line-out (stereo, 3.5mm)	
Audio	High Definition (HD) audio, RealTek® ALC662 codec	
External speakers	None	
Internal speaker	None	
Ethernet	Gigabit ethernet on planar, Realtek® RLT8111DL	
Wireless	None	
Modem	None	
Security chip	None	
11b/g ²⁸	None	
TV tuner	None	
Remote control	None	
Camera	None	
Keyboard	None	
Mouse	None	
Stand	Detachable stand (matching color with chassis)	
Mount Bracket	Mount bracket (black), meets the VESA 75mm and 100mm mount standard	

See footnotes for important warranty information
 US model announced September 15, 2009

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 (NR1-2) October 2009



Lenovo IdeaCentre Q700



Lenovo IdeaCentre Q700



Lenovo IdeaCentre Q700



Lenovo IdeaCentre Q700



Lenovo IdeaCentre Q700
(TV IN and AV IN on some models)



Lenovo IdeaCentre Q700
(TV IN and AV IN on some models)

Type-model	Processor	GHz	L2 cache	Cores	Memory ^a	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Color	Blue-tooth	Vista preload	Avail date
3015-1AU	E5200	2.50	2MB	2	4GB	4-in-1	320GB ²	DVD±RW	GMA X4500				Black	None	Prem 64	Aug 09
3015-1BU	E5200	2.50	2MB	2	4GB	4-in-1	500GB	DVD±RW	GMA X4500			11b/g	Black	None	Prem 64	Aug 09
3015-1CU	E5200	2.50	2MB	2	4GB	4-in-1	640GB	DVD±RW	GMA X4500	TV	Remote	11b/g	Black	None	Prem 64	Aug 09

- **IdeaCentre Q series provide ultimate multimedia experience for home entertainment**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Pentium® Processor E5200 with dual-core, 800MHz system bus, Intel 64 Technology, Execute Disable Bit, EIST, and 2MB L2 cache		Ultra Small Form Factor (3.5L) <ul style="list-style-type: none">• Black color bezel• 2.36" W X 7.87" D X 9.84" H• 60mm W X 200mm D X 250mm H• 5.69 lb (2.58 kg) Bay ① 3.5", 1" high, no access, standard disk Bay ② 0.5" (12.7mm) high, no access, slot-in opt drive Slot 1: Mini PCI Express * Slot 2: Mini PCI Express ** * Wireless adapter in slot in some models ** TV tuner in slot in some models	
Implementation	Processor in FC-LGA6 package in LGA775 socket			
Memory	4GB std , 4GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets <i>Italics:</i> standard memory in two sockets; no sockets available			
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G43, uses main memory, one VGA DB-15 connector, one HDMI connector, HDCP-compliant		Security <ul style="list-style-type: none">• Security slot (in rear for optional Kensington Microsaver cable)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette	
SATA disk	320GB, 500GB, or 640GB SATA 3Gb/s, 7200 rpm			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10			
SATA DVD±RW	Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive, 12.7mm, slot-in			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors			
eSATA port	One external SATA (eSATA) port			
EIDE controller	None			
Diskette drive	None			
Media reader	4-in-1 media reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)			
Chipset	Intel G43 Express Chipset (PCI Express® x16), I/O Controller Hub 10 [ICH10] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB)			
Front ports	Four USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Rear ports	Four USB 2.0, one eSATA, ethernet (RJ-45), monitor (VGA DB-15, HDMI) <i>3015-1CU:</i> AV IN port, TV IN port			
Rear audio ports	Line-in (stereo, 3.5mm), three line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm), SPDIF-out			
Audio	High Definition (HD) audio, RealTek® ALC888s codec			
External speakers	None			
Internal speaker	None			
Ethernet	Gigabit ethernet on planar, Intel 82567V			
Wireless	<i>Some:</i> 11b/g wireless ⁴ , Broadcom® BCM4312, PCIe x1 adapter			
Modem	None			
Security chip	None			
Mini PCI Express	Two Mini PCI Express slots			
11b/g ²⁸	<i>Some:</i> 11b/g wireless, Broadcom® BCM4312, miniPCIe x1 adapter			
TV tuner	<i>Some:</i> Hybrid tuner, support analog (NTSC) and digital (ATSC) signal, AverMedia Hybrid ATSC PCIe miniCard A317, miniPCIe x1 adapter			
Remote control	<i>Some:</i> Philips® Vista MCE remote control (40/45 button), IR receiver integrated			
Camera	None			
Keyboard	104-key wired keyboard (USB connector)			
Mouse	Wired optical wheel mouse (USB connector)			
Power supply	120 watts, AC adapter, auto switch			
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Home Premium 64✧ Vista Premium logo		Preloaded applications⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• Windows Live™ Toolbar• Media Show• CyberLink Power2Go (DVD±RW)		

See footnotes for important warranty information
US models announced August 11, 2009

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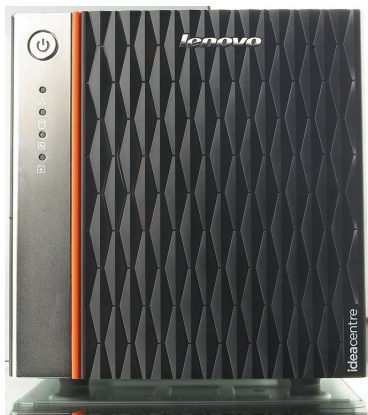
Type-model	Processor	GHz	L2 cache	Cores	Memory ^a	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Color	Blue-tooth	Win7 preload	Avail date
3015-1LU	E5200	2.50	2MB	2	4GB	4-in-1	640GB ² DVD±RW		GMA X4500	TV	Remote		Black	None	Prem 64	Oct 09
3015-1JU	E5300	2.60	2MB	2	4GB	4-in-1	500GB DVD±RW		GMA X4500	TV	Remote	11b/g	Black	None	Prem 64	Oct 09
3015-1KU	E7500	2.93	3MB	2	4GB	4-in-1	640GB DVD±RW		GMA X4500	TV	Remote	11b/g	Black	None	Prem 64	Oct 09

- **IdeaCentre Q series provide ultimate multimedia experience for home entertainment**
- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

Processor	Intel® Pentium® Processor E5200 or E5300 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core 1066MHz system bus, and 3MB L2 cache	Ultra Small Form Factor (3.5L) <ul style="list-style-type: none">• Black color bezel• 2.36" W X 7.87" D X 9.84" H• 60mm W X 200mm D X 250mm H• 5.69 lb (2.58 kg)	
Implementation	Processor in FC-LGA6 package in LGA775 socket		
Memory	4GB std , 4GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets <i>Italics:</i> standard memory in two sockets; no sockets available		Bay ① 3.5", 1" high, no access, standard disk Bay ② 0.5" (12.7mm) high, no access, slot-in opt drive
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G43, uses main memory, one VGA DB-15 connector, one HDMI connector, HDCP-compliant		Slot 1: Mini PCI Express * Slot 2: Mini PCI Express ** * Wireless adapter in slot in some models ** TV tuner in slot in some models
SATA disk	500GB or 640GB SATA 3Gb/s, 7200 rpm	Security <ul style="list-style-type: none">• Security slot (in rear for optional Kensington Microsaver cable)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10		
SATA DVD±RW	Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive, 12.7mm, slot-in		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	One external SATA (eSATA) port		
EIDE controller	None		
Diskette drive	None		
Media reader	4-in-1 media reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card)		
Chipset	Intel G43 Express Chipset (PCI Express® x16), I/O Controller Hub 10 [ICH10] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB)		
Front ports	Four USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Rear ports	Four USB 2.0, one eSATA, ethernet (RJ-45), monitor (VGA DB-15, HDMI), AV IN port, TV IN port		
Rear audio ports	Line-in (stereo, 3.5mm), three line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm), SPDIF-out		
Audio	High Definition (HD) audio, RealTek® ALC888s codec		
External speakers	None		
Internal speaker	None		
Ethernet	Gigabit ethernet on planar, Intel 82567V		
Wireless	<i>Some:</i> 11b/g wireless ⁴ , Broadcom® BCM4312, PCIe x1 adapter		
Modem	None		
Security chip	None		
Mini PCI Express	Two Mini PCI Express slots		
11b/g ²⁸	<i>Some:</i> 11b/g wireless, Broadcom® BCM4312, miniPCIe x1 adapter		
TV tuner	Hybrid tuner, support analog (NTSC) and digital (ATSC) signal, AverMedia Hybrid ATSC PCIe miniCard A317, miniPCIe x1 adapter		
Remote control	Philips® MCE remote control (40/45 button), IR receiver integrated		
Camera	None		
Keyboard	104-key wired keyboard (USB connector)		
Mouse	Wired optical wheel mouse (USB connector)		
Power supply	120 watts, AC adapter, auto switch		
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Home Premium 64		Limited Warranty ¹ <ul style="list-style-type: none">➤ 1-year parts and labor➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, often next business day response time)➤ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)➤ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686	
Preloaded applications ⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation			
<ul style="list-style-type: none">• McAfee VirusScan® Plus 2009 (30 days of virus definitions)• Media Show• CyberLink Power2Go (DVD±RW)			

See footnotes for important warranty information
 US models announced October 23, 2009

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Lenovo IdeaCentre D400



Lenovo IdeaCentre D400



Lenovo IdeaCentre D400



Lenovo IdeaCentre D400 (rear view)



Lenovo IdeaCentre D400



Lenovo IdeaCentre D400 (left view)

Type-model	Processor	GHz	L2 cache	Memory ⁸	SATA disks	SATA optical	Graphics	eSATA	Ethernet	Color	Preload	Avail date
3013-1AU	Atom 230	1.60	512KB	1GB	1TB ² (1TB, 0, 0, 0)	None	GMA 950	eSATA	Gigabit	Black	Windows Home Server	Sep 09
3013-1BU	Atom 230	1.60	512KB	1GB	2TB (1TB, 1TB, 0, 0)	None	GMA 950	eSATA	Gigabit	Black	Windows Home Server	Sep 09
3013-1CU	Atom 230	1.60	512KB	1GB	1TB (1TB, 0, 0, 0)	None	GMA 950	eSATA	Gigabit	Black	Windows Home Server	Sep 09
3013-1DU	Atom 230	1.60	512KB	1GB	2TB (1TB, 1TB, 0, 0)	None	GMA 950	eSATA	Gigabit	Black	Windows Home Server	Sep 09

- **A Digital home storage, smaller than a 9 inch cube and built to store/share music, movies, files and more.**
- **Easy plug-and-play set up and convenient remote access.**
- **Provides four 3.5 inch bays for hard disks, up to 8TB capacity.**
- **Easy USB file transfer, pressing one button to copy USB drive contents to the internal hard drives.**

Processor	Intel® Atom™ Processor 230 with single-core, Hyper-Threading technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 512KB L2 cache		Small Form Factor	
Implementation	Processor in Micro-FCBGA package in BGA437 socket		<ul style="list-style-type: none">• Black color bezel• 7.9" W X 8.2" D X 8.3" H• 200mm W X 208.6mm D X 212mm H• 14.3 lb (6.5 kg) for maximum configuration	
Memory	1GB std , 2GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, one 240-pin DIMM socket <i>Non-Italics</i> : standard memory in socket; no sockets available		Bay ① 3.5", 1" high, external, standard disk Bay ② 3.5", 1" high, external, optional disk* Bay ③ 3.5", 1" high, external, optional disk* Bay ④ 3.5", 1" high, external, optional disk* * Bay used in some models	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , integrated graphics in 945GC, uses main memory, no monitor ports, remote access via network		Slot 1: half-length, low-profile, PCI Express x4	
SATA disks	1TB or 2TB std , up to 8TB capacity, SATA 3Gb/s, 7200 rpm, Four hard disk bays, tool-less, support hot-swap*		Data protection features <ul style="list-style-type: none">• Back up all your home digital devices automatically• Duplicate important data automatically, copy designated data to two internal hard drives for added safety (some models)• Inbuilt flash drive allows easy recovery and prevents data lost in the event of a system problem	
Disk bays	* Need to first remove disk in software via Windows Home Server Console			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			
SATA DVD±RW	None			
SATA cables	Four SATA cables (each 1-drop to device), Four SATA connectors			
eSATA port	One external SATA (eSATA) port in rear		Available at these retailers <ul style="list-style-type: none">• lenovo.com	
Diskette drive	None			
Media reader	None		Limited Warranty¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, often next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686	
Chipset	Intel 945GC Express Chipset , I/O Controller Hub 7 RAID [ICH7R] (SATA 3.0Gb/s, ethernet MAC, PCI 2.3, USB, LPC bus)			
Front ports	One USB 2.0 with USB copy button (Easy USB file transfer function)			
Rear ports	Four USB 2.0, one eSATA, ethernet (RJ-45)			
Rear audio ports	None			
Audio	None			
External speakers	None			
Internal speaker	None			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8071			
Modem	None			
Security chip	None			
Keyboard	None			
Mouse	None			
Power supply	200 watts, universal, auto autosensing			
Security	Security slot (in rear for optional Kensington® Microsaver® cable)			
Preloaded operating system²⁰ - Genuine Windows® Home Server		Client applications (Needs customer installation, Client software CD included) <ul style="list-style-type: none">• Windows Home Server Connector Software• Lenovo Home Server EasyAccess utility		
Preloaded applications⁵ <ul style="list-style-type: none">• LightsOut• iTunes Server• LED brightness control• One Key USB backup• IP address configuration• System Information				

See footnotes for important warranty information
 US models announced September 1, 2009

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**Partial list of accessories supported on:
IdeaCentre K210, K220, and K230****Storage and removable storage**

USB 2.0 MyKey E10 Flash Drive 1GB	45J7701	ann	04/29/08
USB 2.0 MyKey E10 Flash Drive 2GB	45J7702	ann	04/29/08
USB 2.0 MyKey E10 Flash Drive 4GB	45J7703	ann	04/29/08
USB 2.0 MiniKey M10D1 Flash 2GB (gray)	45J7752	ann	05/20/08
USB 2.0 MiniKey M10D2 Flash 2GB (black)	45J7754	ann	05/20/08
USB 2.0 MiniKey M10E1 Flash 2GB (teal)	45J7756	ann	05/20/08
USB 2.0 MiniKey M10E2 Flash 2GB (pink)	45J7758	ann	05/20/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 DataSlim E16 Portable HD 160GB	45J7700	ann	04/29/08
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09

Keyboard

Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.**Mouse**

Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
IdeaPad Mini Optical Mouse M10 (black)	47J7729	ann	06/17/08
IdeaPad Mini Optical Mouse M10A (black)	45J7730	ann	07/15/08
Lenovo Mini Optical Mouse M30 (black)	47J7735	ann	06/17/08
Lenovo Mini Optical Mouse M30 (white)	47J7736	ann	06/17/08
Lenovo Mini Optical Mouse M30 (red)	47J7737	ann	06/17/08
Lenovo Mini Optical Mouse M30 (blue)	47J7738	ann	06/17/08
Mini Wireless Laser Mouse N10 (black)	45J7731	ann	06/17/08
Mini Wireless Laser Mouse N10 (red)	45J7732	ann	06/17/08

Monitors

Lenovo® L215 Wide 21.5" Monitor	6325HB1	ann	01/27/09
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories**Consumer monitors**

Lenovo L195 Wide 19" LCD Monitor	4418HC1	ann	09/02/08
Lenovo L222 Wide 22" LCD Monitor	4432HF1	ann	09/02/08

Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

- ¹ **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.
- ² **Hard disk drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
- ³ **Customer Replacement Units (CRUs)** are designed to be replaced by customers during the applicable warranty period. Lenovo will send a technician onsite to perform a repair if remote telephone diagnosis does not isolate the problem, if customer replaceable parts are unable to resolve the problem, or at the request of the customer. For a list of customer replaceable parts, contact Lenovo. Support unrelated to a warranty issue may be subject to additional charges.
- ⁴ **Wireless capability:** Requires compatible wireless-enabled options sold separately.
- ⁵ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. License agreements may apply.
- ⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On ThinkPad systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.

⁸ **Memory:** For PCs without a separate video card, memory supports both system and video. Accessible system memory is less than the amount stated, depending on video mode.

⁹ **Service upgrade options:** Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees.

¹⁰ **Modem speeds:** Public network download speeds are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.

¹⁴ **Response times may vary.** May exclude some holidays. Telephone support may be subject to additional charges.

²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.

²⁸ **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.



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April 2010
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Personal Systems Reference Lenovo® Essential Notebooks

April 2010 - Version 376



Visit www.lenovo.com/psref for the latest version

These Lenovo N200 models use a 15.4" widescreen display

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(SN2-2) February 2009

Partial list of accessories supported on:

- **Lenovo N200 14W** originally announced on May 22, 2007
- **Lenovo N200 15W** originally announced on May 9, 2007

Memory

1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann 03/25/08
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann 03/25/08

Storage and removable storage

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09

Keyboard

USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08
ThinkPad® Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

ExpressCard/54 slot:

ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
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Power Accessories

N200 14W (0687) only:

Lenovo N200 14W Li-Ion Battery 6-cell	41U5025	ann 05/22/07
Lenovo N200 14W Li-Ion Battery 9-cell	41U5026	ann 05/22/07

N200 15W (0769) only:

Lenovo C200/N200 15W Li-Ion Battery 6-cell	40Y8322	ann 10/17/06
Lenovo N200 15W Li-Ion Battery 9-cell	41U5027	ann 05/09/07

All models:

ThinkPad and Lenovo 65W AC Adapter ⁴⁵	40Y7696	ann 09/20/05
⁴⁵ Only compatible with the 945GM and GM965 chipset models.		
ThinkPad and Lenovo 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann 09/22/09
Belkin Surge Protector	31P7659	
Belkin 1 outlet Notebook Surge	31P7658	

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Lenovo CareSM maintenance services

Warranty service upgrade:²²

1-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0547
2-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0548
2-year Parts and Labor (P&L) Pickup Depot	41K0545
3-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0549
3-year Parts and Labor (P&L) Pickup Depot	41K0546

Post-warranty maintenance services:⁵

1-year maintenance Parts and Labor Pickup Depot SBD	41K0550
1-year maintenance 9x5 Next Business Day response	41K0551
2-year maintenance Parts and Labor Pickup Depot SBD	41K0552
2-year maintenance 9x5 Next Business Day response	41K0553

[SBD=Second Business Day average response]

Lenovo Care maintenance services at www.lenovo.com/warranty

Type-model	Processor	GHz	Memory	Widescreen display	Screen type	Cam-era	Inte-grated graphics	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Finger-print reader	tery cells	Preload	Avail date					
* 0764-2BU	Core 2 Duo T7100	1.80	1GB	12.1" WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g ¹¹	Blue	Fing	3	Home Prem	May 07					
* 0764-2CU	Core 2 Duo T7300	2.00	1GB	12.1" WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g	Blue	Fing	6	Business 32	May 07					
* 0764-2DU	Core 2 Duo T7300	2.00	2GB	12.1" WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11n ²⁸	Blue	Fing	6	Ultimate 32	May 07					
* 0764-2NU	Core 2 Duo T5250	1.50	2GB	12.1" WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11n	Blue	Fing	6	Ultimate 32	July 07					
* 0764-2PU	Core 2 Duo T5250	1.50	1GB	12.1" WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g	Blue	Fing	6	XP Pro	Oct 07					
0764-2WU	Core 2 Duo T5550	1.83	1GB	12.1" WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g	Blue	Fing	3	XP Pro	Jan 08					
0764-2XU	Core 2 Duo T5550	1.83	2GB	12.1" WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11n	Blue	Fing	6	Business 32	Jan 08					
0764-2YU	Core 2 Duo T5750	2.00	1GB	12.1" WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g	Blue	Fing	3	Business 32	Mar 08					
<ul style="list-style-type: none">• These models use a 12.1" widescreen display• Two-spindle (disk and optical) in an ultraportable• Multimedia ready: press button to load InterVideo InstantON music and movie player without loading OS																				
Positioning Processor	Widescreen ultraportable; two spindles Intel® Core™ 2 Duo processor T5250, T5550, or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor T7100 or T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100: 2MB L2 cache (shared); T7300: 4MB L2 cache (shared)										Preloaded operating system²⁰ <ul style="list-style-type: none">- Some: Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business- Some: Genuine Windows Vista Home Premium 32- Some: Genuine Windows Vista Business 32- Some: Genuine Windows Vista Ultimate 32 ◇ 2YU model: Vista Basic logo ◇ Other Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes) <ul style="list-style-type: none">• Lenovo CareSM Tools<ul style="list-style-type: none">– Rescue and RecoveryTM– System Update– Password Manager– Access ConnectionsTM• Lenovo Multimedia Center (Vista)• Norton Internet SecurityTM (90 days of virus definitions)• Softex OmniPass (on fingerprint models)• PC-DoctorTM (diagnostics)• Network MagicTM• Windows LiveTM Toolbar• Adobe® Reader• Picasa from Google• Diskeeper® Home• Corel® Small Business CenterTM with WordPerfect® Office 12• QuickBooks Financial Center• Microsoft® Office 2007 Trial• EarthLink (Vista Home Basic and Home Premium models only)• InterVideo InstantON• Roxio Digital Media LE (DVD±RW for XP only)• Corel WinDVD® (DVD±RW for XP only)• Corel WinDVD Creator (DVD±RW for XP only) Universal 65-watt AC adapter Wireless on/off switch RoHS-compliant ENERGY STAR® 4.0-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378									
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available																			
Diskette drive	None																			
EIDE DVD±RW	DVD burner, DL support, fixed, not removable, 12.7mm high																			
SATA disk	160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable																			
Widescreen display	12.1" (307.3mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 180 nits, 16:9 aspect ratio, 400:1 contrast ratio, no latch open-close mechanism																			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, internal USB 2.0																			
Graphics	Intel Graphics Media Accelerator X3100 , in GM965																			
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys; <i>Buttons across top:</i> on-off, Lenovo Care SM , instant on, mute, volume down, volume up																			
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)																			
InstantON	Press button to load InterVideo InstantON music and movie player without loading OS																			
Dimensions ³	3-cell (WxDxH): 12.01"x 8.94"x 1.25"; 305.1mm x 227.0mm x 31.7mm 6-cell (WxDxH): 12.01"x 9.68"x 1.25"; 305.1mm x 246.0mm x 31.7mm with optical drive and battery: 4.0 lb (1.81kg) to 4.4 lb (1.99kg)																			
Weight ²	with optical drive and battery: 4.0 lb (1.81kg) to 4.4 lb (1.99kg)																			
Case color	Silver top; black bottom																			
Case material	ABS plastic																			
Battery - type	Lithium Ion 3-cell or 6-cell, 2600 mAh, smart battery																			
Battery - life ¹⁰	3-cell: up to 2.1 hr; 6 cell: up to 4.2 hr																			
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus (ENE KB925 Super I/O)																			
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																			
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO TM , Secure Digital, xD-Picture Card TM)																			
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																			
Mini PCI Express	One Mini PCI Express slot, not customer upgradable																			
Intel 11a/b/g ¹¹	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG																			
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCI Express adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)																			
Bluetooth TM	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator																			
Modem	56K V.92 ⁶ modem																			
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI Express x1																			
Audio support	Intel High Definition (HD) Audio, Conexant® CX20549 codec / stereo speakers, 1 watt / volume, up, down, mute button / stereo microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)																			
Security	Power-on password, hard disk password, supervisor password, security keyhole																			
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, no preboot support																			
Limited warranty ¹²	1-year - EasyServ ^{TM,19} depot repair service / service upgrades ²² available																			
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999															V100 Series Li-Ion Battery 3-cell 40Y8319				
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000															V100 Series Li-Ion Battery 6-cell 40Y8321				
USB 2.0 Essential Memory Key 8GB	45J7905															ThinkPad and Lenovo 65W AC Adapter 40Y7696				
160GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	41N5692															ThinkPad and Lenovo 90W AC Adapter 40Y7659				
Lenovo Laser Mouse (USB)	41U3074															90W Ultraslim AC/DC Combo Adapter 41R4493				
Kensington® MicroSaver® Cable Lock	73P2582															Lenovo Carrying Case - Messenger Max41U5253				
																Lenovo Case - Performance Backpack 41U5254				
																Others at http://lenovo.com/accessories				
																Lenovo Care SM 1-year LOR 9x5 NBD 41K0547				
																Lenovo Care 2-year LOR 9x5 NBD 41K0548				
																Lenovo Care 2-year P&L PU Depot 41K0545				
																Lenovo Care 3-year LOR 9x5 NBD 41K0549				
																Lenovo Care 3-year P&L PU Depot 41K0546				

See footnotes for important warranty information

* Intel Centrino® processor technology

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⚠ US model announced March 18, 2008; previous models on May 22, July 17, October 2, 2007, or January 8, 2008

(FS2-1) February 2009

⚠ US models withdrawn effective December 2007 or May 2008

Partial list of accessories supported on:
• Lenovo V200 announced on May 22, 2007

Memory

1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann 03/25/08
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann 03/25/08

Storage and removable storage

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
160GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	41N5692	ann 03/20/07

Keyboard

USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann 11/25/08
ThinkPad® Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
<i>ExpressCard/54 slot:</i>		
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Power Accessories

Lenovo V100 Series Li-Ion Battery 3-cell	40Y8319	ann 05/16/06
Lenovo V100 Series Li-Ion Battery 6-cell	40Y8321	ann 05/16/06
ThinkPad and Lenovo 65W AC Adapter	40Y7696	ann 09/20/05
ThinkPad and Lenovo 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann 09/22/09
Belkin Surge Protector	31P7659	
Belkin 1 outlet Notebook Surge	31P7658	

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann 01/31/07

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Lenovo CareSM maintenance services**Warranty service upgrade:²²**

1-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0547
2-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0548
2-year Parts and Labor (P&L) Pickup Depot	41K0545
3-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0549
3-year Parts and Labor (P&L) Pickup Depot	41K0546

Post-warranty maintenance services:⁵

1-year maintenance Parts and Labor Pickup Depot SBD	41K0550
1-year maintenance 9x5 Next Business Day response	41K0551
2-year maintenance Parts and Labor Pickup Depot SBD	41K0552
2-year maintenance 9x5 Next Business Day response	41K0553
[SBD=Second Business Day average response]	

Lenovo Care maintenance services at www.lenovo.com/warranty

lenovo



Lenovo G530



Lenovo G530



Lenovo G530



Lenovo G530

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Battery cells	Vista preload	Avail date
4151-X2U	T3400	2.16	2GB	15.4" WXGA	Cam	GMA	160GB ⁸	DVD±RW	Lenovo 11b/g ¹¹	Black	None	6-cell	Basic	Mar 09
✕ 4151-38U	T3400	2.16	3GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	Lenovo 11b/g	Black	None	4-cell	Prem 32	Jan 09
4151-3BU	T3400	2.16	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	Lenovo 11b/g	Black	None	4-cell	Prem 32	Mar 09
4151-X3U	T3400	2.16	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	Lenovo 11b/g	Black	None	6-cell	Prem 32	Mar 09
☞ 4151-93U	T4200	2.00	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	Lenovo 11b/g	Black	None	6-cell	Prem 32	Oct 09

- **15.4" widescreen, glossy display**
- **Bold black color with piano finish**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Processor T3400 or T4200 with dual-core , T3400: 667MHz system bus, T4200: 800MHz system bus; and 1MB L2 cache	Preloaded operating system²⁰ - Some: Genuine Windows® Vista® Home Basic 32 - Some: Genuine Windows Vista Home Premium 32 ✧ 4151-X2U: Vista Basic logo ✧ Others: Vista Premium logo
Memory	2GB or 3GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available	Preloaded applications¹⁴ (only some listed) • Lenovo™ OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 160GB (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable	65-watt AC adapter Wireless on/off switch RoHS-compliant
Widescreen display Camera	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500M (GMA 4500M) , in GL40, <i>Max external resolution:</i> 2048x1536@75Hz (DB-15 port)	
Keyboard Multimedia controls Touch pad	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, recovery key Touch-sensitive volume control panel with one user defined button Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 14.1" x 10.1" x 1.22" to 1.46"; 358.5mm x 256.5mm x 31 to 37mm with optical drive and battery: 6-cell: 5.95 lb (2.7 kg) Black top, black bottom ABS plastic; <i>Palm rest:</i> ABS plastic Lithium Ion 4-cell or 6-cell 4-cell: Up to 2.5 hr; 6-cell: up to 4.5 hr	
Chipset	Mobile Intel GL40 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)	Limited Warranty¹² ⇒ 1-year parts and labor ⇒ Depot repair service¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year Onsite with accidental damage protection 78Y1533 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 78Y1540 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 78Y1541 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
ExpressCard/54 Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) None Four USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
TV tuner Mini PCI Express Lenovo 11b/g ¹¹ Bluetooth™ Modem Ethernet Audio support	None One Mini PCI Express slot 11b/g wireless ⁴ , Lenovo 11b/g Mini PCI Express Adapter, Broadcom® BCM4312 None 56K ⁶ V.92 ¹⁵ modem 10/100 ethernet, Broadcom® BCM5906M High Definition (HD) Audio, CX20561-15Z codec / two main speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security Fingerprint reader	Power-on password, hard disk password, supervisor password, security lockhole, None	

See footnotes for important warranty information

☞ US model announced September 30, 2009; previous model on January 27 or March 17, 2009

✕ US model withdrawn effective March 2009

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(ACN1-1) October 2009

Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	Integrated graphics	Chipset	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Blue- tooth	Battery cells	Preload	Avail date
4446-34U	Cel 900	2.20	2GB	15.4" WXGA	0.3	GMA 4500M	GL40	160G 5400	DVD±RW	RealTek b/g	None	6	Home B	Sep 09
4446-23U	T3400	2.16	2GB	15.4" WXGA	0.3	GMA 4500M	GL40	160G 5400	DVD±RW	RealTek b/g ¹¹	None	6	Home B	Mar 09
4446-24U	T3400	2.16	3GB	15.4" WXGA	0.3	GMA 4500M	GL40	250G 5400	DVD±RW	RealTek b/g	None	6	Prem 32	Mar 09
4446-35U	T4200	2.00	2GB	15.4" WXGA	0.3	GMA 4500M	GL40	160G 5400	DVD±RW	RealTek b/g	None	6	Home B	Sep 09
4446-3JU	T4200	2.00	2GB	15.4" WXGA	0.3	GMA 4500M	GL40	160G 5400	DVD±RW	RealTek b/g	None	6	Prem 32	Sep 09
4446-3GU	T4200	2.00	2GB	15.4" WXGA	0.3	GMA 4500M	GL40	250G 5400	DVD±RW	RealTek b/g	None	6	XP Pro	Sep 09
4446-36U	T4200	2.00	3GB	15.4" WXGA	0.3	GMA 4500M	GL40	250G 5400	DVD±RW	RealTek b/g	None	6	Prem 32	Sep 09
4446-25U	T6400	2.00	3GB	15.4" WXGA	1.3	GMA 4500MHD	GM45	250G 5400	DVD±RW	* Intel 5100 ²⁸	None	6	XP Pro	Mar 09
4446-38U	T6500	2.10	3GB	15.4" WXGA	1.3	GMA 4500MHD	GM45	250G 5400	DVD±RW	* Intel 5100	None	6	XP Pro	Sep 09

- 15.4" widescreen, glossy display
- Matte black finish

Processor	Intel® Celeron® Processor 900 with single-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor T3400 or T4200 with dual-core, 1MB L2 cache, T3400: 667MHz system bus; T4200: 800MHz system bus or Intel Core™ 2 Duo processor T6400 or T6500 with dual-core, 800MHz system bus, and 2MB L2 cache			Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business- <i>Some:</i> Genuine Windows Vista Home Basic 32- <i>Some:</i> Genuine Windows Vista Home Premium 32 Preloaded applications ¹⁴ <ul style="list-style-type: none">• Lenovo Care™ Tools<ul style="list-style-type: none">- Rescue and Recovery™- Access Connections™- Presentation Director• Easy Capture• Adobe® Reader• Norton Internet Security™ (90 days of virus definitions)• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Roxio® Creator® Small Business Edition• InterVideo WinDVD® (DVD±RW)		
Memory	2GB or 3GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available					
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable					
Widescreen display	15.4" (391.2mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio					
Camera	<i>Some:</i> camera on top of screen, 0.3-megapixel, fixed focus <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus					
Integrated graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500M (GMA 4500M), in GL40 <i>Some:</i> Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, <i>All:</i> Max external resolution: 2048x1536@75Hz (DB-15 port)					
Keyboard	Full-size keyboard, 6-row, Lenovo Care button, multimedia Fn keys, Windows/Appl keys					
Touch controls	Touch-sensitive volume control panel with one user defined button					
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)					
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.1" x 1.22–1.46"; 358.5 x 256.5mm x 31–37mm					
Weight ²	6-cell: starting at 5.95 lb (2.7kg)					
Case color	Matte black finish					
Case material	ABS plastic					
Battery - type	Lithium Ion 6-cell					
Battery - life ¹⁰	6-cell: up to 4.5 hr					
Chipset	Mobile Intel GL40/GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)					
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)					
Multicard reader	4-in-1 reader (Memory Stick, Memory Stick PRO™, Secure Digital, xD-Picture Card™)					
PC Card	None					
Smart Card read	None					
Ports	Four USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)					
Mini PCI Express	One Mini PCI Express slot					
RealTek b/g ¹¹	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI Express Adapter, RealTek chipset					
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)					
WWAN upg	None					
UWB	None					
Modem	56K V.92 ⁶ modem					
Bluetooth™	None					
Ethernet	10/100 ethernet, Broadcom® BCM5906M					
Intel AMT	None					
Audio support	High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / microphone, mic input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	None					
Fingerprint reader	None					
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	N500/G500 Series Li-Ion Battery 6-cell	51J0226			
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	Lenovo G430/530/450/550 Battery 6-cell	57Y6266			
USB 2.0 Essential Memory Key 4GB	45J7904	Lenovo G430/530/450/550 Battery 6-cell	57Y6266			
USB 2.0 Essential Memory Key 32GB	45K1258	Lenovo G500 Series 90W AC Adapter	41R4515			
USB Port Replicator with Digital Video	45K1610	Lenovo Carrying Case - Messenger Max	41U5253			
ThinkPad Travel Mouse (USB, Optical)	31P7410	Lenovo Case - Performance Backpack	41U5254			
Lenovo Wireless Laser Mouse - Black	45K1696	Lenovo Essential Notebook Stand	45J9292			
Lenovo Wireless Laser Mouse - Red/Black	51J0198	Kensington® MicroSaver® Cable Lock	73P2582			
		Kensington Twin Head Cable Lock	45K1620			
		Other accessories at lenovo.com/accessories				

65-watt (GMA graphics) AC adapter
Wireless on/off switch
RoHS-compliant

Limited Warranty¹²

- **1-year warranty*:**
 - * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter
- **Mail In repair service**
- **Service upgrade options (in eligible locations):⁹**
 - 3-year Mail In warranty 55Y2507
 - 1-year Mail In warranty with ADP 55Y2511
 - 3-year Mail In warranty with ADP 55Y2513
 - 3-year Onsite warranty 55Y2510
 - 1-year Onsite warranty with ADP 55Y2514
- **Toll-free support for warranty issues during the warranty period¹² via 877-453-6686**

See footnotes for important warranty information

* Intel Centrino® processor technology

US models announced September 10, 2009, previous models on March 31, 2009

US models withdrawn effective October 2009

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lenovo



Lenovo G450



Lenovo G450



Lenovo G450



Lenovo G450

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Keypad	Blue-tooth	Battery cells	Vista preload	Avail date
2949-79U	T4200	2.00	4GB	14.0" WXGA	Cam	GMA	320GB ⁸	DVD±RW	11b/g ¹¹	Gray	None	None	6-cell	Prem 64	Aug 09

- **14.0" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face.**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processo	Widescreen flexibility; two-spindle Intel® Pentium® Processor T4200 with dual-core, 800MHz system bus, and 1MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® Vista® Home Premium 64 ◇ Vista Premium logo Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• Norton Internet Security™ (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW) 65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant Limited Warranty ¹² ⇒ 1-year warranty* : * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇒ Mail In repair service ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 3-year Mail In warranty 55Y2507• 1-year Mail In warranty with ADP 55Y2511• 3-year Mail In warranty with ADP 55Y2513• 3-year Onsite warranty 55Y2510• 1-year Onsite warranty with ADP 55Y2514 ⇒ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Memory	4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		
Widescreen display Camera	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500M (GMA 4500M) , in GL40, <i>Max external resolution:</i> 2048x1536 @ 75Hz (DB-15 port)		
Keyboard Numeric keypad Multimedia controls Touch pad	Full-size keyboard, Fn keys, recovery key None Touch-sensitive volume control panel Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 13.6" x 9.3" x 1.03" to 1.41"; 345mm x 235mm x 26.2 to 35.9mm with optical drive and battery: <i>6-cell:</i> from 4.87 lb (2.21kg) Gray top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell <i>6-cell:</i> up to 5 hr		
Chipset	Mobile Intel GL40 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC) One slot (ExpressCard/34)		
ExpressCard/34 Multicard reader Ports	None Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner Mini PCI Express 11b/g ²⁸ Bluetooth™ Modem Ethernet Audio support	None One Mini PCI Express slot 11b/g wireless ⁴ , Mini PCI Express Adapter, Broadcom® BCM4312 None None 10/100 ethernet, Broadcom® BCM5906M High Definition (HD) Audio, CX20561-12Z codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security Fingerprint reader	Power-on password, hard disk password, supervisor password, security lockhole None		

See footnotes for important warranty information
US model announced August 11, 2009

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(APX2-1) November 2009

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Keypad	Blue-tooth	Battery cells	Win7 preload	Avail date
2949-CFU	T4300	2.10	3GB	14.0" WXGA	0.3M	GMA	250GB ⁸	DVD±RW	11b/g ¹¹	Gray	None	None	6-cell	Prem 32	Oct 09
2949-CHU	T4300	2.10	4GB	14.0" WXGA	0.3M	GMA	320GB	DVD±RW	11b/g	Gray	None	None	6-cell	Prem 64	Oct 09

- **14.0" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face.**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processo	<i>Widescreen flexibility; two-spindle</i> Intel® Pentium® Processor T4300 with dual-core, 800MHz system bus, and 1MB L2 cache		Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® 7 Home Premium 32- <i>Some:</i> Genuine Windows 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• McAfee VirusScan® Plus 2009 (30 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)
Memory	3GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		
Widescreen display Camera	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500M (GMA 4500M) , in GL40, <i>Max external resolution: 2048x1536@75Hz (DB-15 port)</i>		65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant Limited Warranty ¹² ⇒ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇒ Mail In repair service ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 3-year Mail In warranty with ADP 55Y2513• 3-year Onsite warranty 55Y2510• 1-year Onsite warranty with ADP 55Y2514 ⇒ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Keyboard Numeric keypad Multimedia controls Touch pad	Full-size keyboard, Fn keys, recovery key None Touch-sensitive volume control panel Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>(WxDxH):</i> 13.6" x 9.3" x 1.03" to 1.41"; 345mm x 235mm x 26.2 to 35.9mm with optical drive and battery: <i>6-cell:</i> from 4.87 lb (2.21kg) Gray top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell <i>6-cell:</i> up to 5 hr		
Chipset	Mobile Intel GL40 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/34 Multicard reader Ports	One slot (ExpressCard/34) None Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner Mini PCI Express 11b/g ²⁸ Bluetooth™ Modem Ethernet Audio support	None One Mini PCI Express slot 11b/g wireless ⁴ , Mini PCI Express Adapter, Broadcom® BCM4312 None None 10/100 ethernet, Broadcom® BCM5906M High Definition (HD) Audio, CX20561-12Z codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security Fingerprint reader	Power-on password, hard disk password, supervisor password, security lockhole None		

See footnotes for important warranty information
US models announced October 23, 2009

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Type-model	Pro- cessor	GHz	Memory	Widescreen display	Cam- era	Discrete graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Keypad	Blue- tooth	Battery cells	Win7 preload	Avail date
2949-CGU	T6600	2.20	4GB	14.0" WXGA	0.3M	G210M	320GB ⁸	DVD±RW	Intel 5100 ²⁸	Gray	None	Blue	6-cell	Prem 64	Oct 09

- **14.0" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face.**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processo	<i>Widescreen flexibility; two-spindle</i> Intel® Core™ 2 Duo Processor T6600 with dual-core , 800MHz system bus, and 2MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• McAfee VirusScan® Plus 2009 (30 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)
Memory	4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		
Widescreen display Camera	14.0" (355.6mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus		
Discrete graphics	NVIDIA® GeForce® G210M , PCI Express® x16, 512MB memory, DirectX® 10.1, PureVideo® HD technology, VGA, HDMI, HDCP-compliant		<div>90-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant</div> <div>Limited Warranty¹² ⇨ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇨ Mail In repair service ⇨ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Mail In warranty 55Y2507• 1-year Mail In warranty with ADP 55Y2511• 3-year Mail In warranty with ADP 55Y2513• 3-year Onsite warranty 55Y2510• 1-year Onsite warranty with ADP 55Y2514⇨ Toll-free support for warranty issues during the warranty period¹² via 877-453-6686</div>
Keyboard Numeric keypad Multimedia controls Touch pad	Full-size keyboard, Fn keys, recovery key None Touch-sensitive volume control panel Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 13.6" x 9.3" x 1.03" to 1.41"; 345mm x 235mm x 26.2 to 35.9mm with optical drive and battery: <i>6-cell</i> : from 4.87 lb (2.21kg) Gray top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell <i>6-cell</i> : up to 3.6 hr		
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None One Mini PCI Express slot 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator None 10/100 ethernet, Broadcom® BCM5906M High Definition (HD) Audio, CX20561-12Z codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security Fingerprint reader	Power-on password, hard disk password, supervisor password, security lockhole None		

See footnotes for important warranty information
US model announced October 23, 2009

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(APX2-3) November 2009

Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Numeric Keypad	Blue-tooth	Battery cells	Win7 preload	Avail date
0708-32U	M320	2.10	3GB	14.0" HD	0.3M	HD 4200	320GB ⁸	DVD±RW	11b/g/n ²⁸	Gray	None	Blue	6-cell	Prem 32	Feb 10

- **14.0" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processo	<i>Widescreen flexibility; two-spindle</i> AMD® Athlon™ II Dual-Core processor M320 with dual-core , integrated DDR2 memory controller, and 1MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• CyberLink YouCam• VeriFace™• Lenovo Energy Management Software• Lenovo DirectShare• Cyberlink Power2Go (DVD±RW)
Memory	3GB std / 4GB max ⁷ / PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		
Widescreen display Camera	14.0" (355.6mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus		
Integrated graphics	ATI™ Mobility Radeon™ HD 4200 Graphics , in M880G, external analog monitor support via VGA DB-15 connector		65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Keyboard	Full-size keyboard, 6-row, recovery key		
Numeric keypad	None		
Multimedia controls	Multimedia Fn keys		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		Limited Warranty ¹² ⇨ 1-year warranty* : * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇨ Mail In repair service ⇨ Service upgrade options ⁵⁸ (in eligible locations): ⁹ <ul style="list-style-type: none">• 3-year Mail In warranty 55Y2507• 1-year Mail In with accidental damage protection 55Y2511• 3-year Mail In with accidental damage protection 55Y2513• 3-year Onsite warranty 55Y2510 ⇨ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>(WxDxH):</i> 13.6" x 9.3" x 1.03" to 1.41"; 345mm x 235mm x 26.2 to 35.9mm with optical drive and battery: <i>6-cell:</i> from 4.85 lb (2.2kg) Gray top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell <i>6-cell:</i> up to 4 hr		
Chipset ExpressCard/34 Multicard reader	AMD M880G Chipset , SB710 south bridge None 5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner PCIe Mini Card 11b/g/n ²⁸ Bluetooth™ Modem Ethernet Audio support	None One PCIe Mini Card slot 11b/g/n wireless ⁴ , PCIe Mini Card adapter Bluetooth 2.1 wireless, USB 2.0 interface None 10/100 ethernet, ATHEROS® AR8132 High Definition (HD) Audio, CX20561-12Z codec / stereo speakers (2 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security Fingerprint reader	Power-on password, hard disk password, supervisor password, security lockhole None		

See footnotes for important warranty information
 US model announced February 23, 2010

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lenovo



Lenovo G550



Lenovo G550



Lenovo G550



Lenovo G550

Type-model	Pro- cessor	GHz	Memory	Widescreen display	Cam- era	Integrated graphics	Chipset	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Card reader	Express- Card	Battery cells	Vista preload	Avail date
2958-2CU	T4200	2.00	2GB	15.6" WXGA	Cam	4500M	GL40	250GB ⁸	DVD±RW	11b/g ¹¹	Gray		/34	6-cell	Prem 32	Jul 09
2958-2DU	T4200	2.00	3GB	15.6" WXGA	Cam	4500M	GL40	250GB	DVD±RW	11b/g	Gray		/34	6-cell	Prem 32	Jul 09
2958-2BU	T4200	2.00	4GB	15.6" WXGA	Cam	4500M	GL40	320GB	DVD±RW	11b/g	Gray		/34	6-cell	Prem 64	Jul 09
2958-45U	T4200	2.00	4GB	15.6" WXGA	Cam	4500M	GL40	320GB	DVD±RW	11b/g	Black			6-cell	Prem 64	Aug 09
2958-3AU	T4200	2.00	4GB	15.6" WXGA	Cam	4500M	GL40	320GB	DVD±RW	11b/g	Black			6-cell	Prem 64	Aug 09
2958-3EU	T6500	2.10	4GB	15.6" WXGA	Cam	4500MHD	GM45	320GB	DVD±RW	Intel 5100	Gray	5-in-1	/34	6-cell	Prem 64	Aug 09
2958-3CU	T6500	2.10	4GB	15.6" WXGA	Cam	4500MHD	GM45	250GB	DVD±RW	Intel 5100	Gray	5-in-1	/34	6-cell	Prem 64	Aug 09
2958-3BU	T6500	2.10	4GB	15.6" WXGA	Cam	4500MHD	GM45	320GB	DVD±RW	Intel 5100	Gray	5-in-1	/34	6-cell	Prem 64	Aug 09

- **15.6" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face.**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Processor T4200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6500 with dual-core, 800MHz system bus, and 2MB L2 cache	Preloaded operating system²⁰ - Some: Genuine Windows® Vista® Home Premium 32 - Some: Genuine Windows Vista Home Premium 64
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; 1 socket available	✦ Vista Premium logo Preloaded applications¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Diskette drive	None	
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in	
SATA disk	250GB (5400 rpm) or 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable	
Widescreen display	15.6" (396.2mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus	
Integrated graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500M (GMA 4500M) , in GL40, one VGA DB-15 port; <i>Some:</i> Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 one VGA DB-15 port, one HDMI port (HDCP-compliant); <i>Max external resolution:</i> 2048x1536@75Hz (DB-15 port)	
Keyboard	Full-size keyboard, Fn keys, recovery key	
Numeric keypad	Numeric keypad on right of keyboard	
Multimedia controls	<i>Gray models:</i> Touch-sensitive volume control panel	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³	(WxDxH): 15.0" x 9.6" x 1.04" to 1.43"; 381mm x 245mm x 26.5 to 36.2mm	65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Weight ²	with optical drive and battery: <i>6-cell:</i> from 5.95 lb (2.7 kg)	
Case color	Gray or Black top, black bottom	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion 6-cell	
Battery - life ¹⁰	<i>6-cell:</i> up to 3.8 hr	
Chipset	<i>Some:</i> Mobile Intel GL40 Express Chipset (Memory Controller Hub), <i>Some:</i> Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)	Limited Warranty¹² ✦ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ✦ Mail In repair service ✦ Service upgrade options (in eligible locations): ⁹ • 3-year Mail In warranty 55Y2507 • 1-year Mail In warranty with ADP 55Y2511 • 3-year Mail In warranty with ADP 55Y2513 • 3-year Onsite warranty 55Y2510 • 1-year Onsite warranty with ADP 55Y2514 ✦ Toll-free support for warranty issues during the warranty period¹² via 877-453-6686
ExpressCard/34	<i>Some:</i> One slot (ExpressCard/34)	
Multicard reader	<i>Some:</i> 5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)	
Ports	Three USB 2.0, external monitor (HDMI on some models, VGA), ethernet (RJ-45)	
TV tuner	None	
Mini PCI Express	One Mini PCI Express slot	
11b/g ¹¹	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI Express Adapter, Broadcom® BCM4312	
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n, Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
Bluetooth™	None	
Modem	None	
Ethernet	10/100 ethernet, Broadcom® BCM5906M	
Audio support	High Definition (HD) Audio, CX20561-12Z codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, hard disk password, supervisor password, security lockhole	
Fingerprint reader	None	

See footnotes for important warranty information

✦ US models announced August 19, 2009; previous models on July 8, 2009

✦ US models withdrawn effective October 2009

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Type-model	Pro-cessor	GHz	Memory	Widescreen display	Cam-era	Integrated graphics	Chipset	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Card reader	Express-Card Blue-tooth	Preload	Avail date
2958-A5U	T4300	2.10	3GB	15.6" WXGA	0.3M	4500M	GL40	250GB ⁸	DVD±RW	11b/g ¹¹	Black		None	XP Pro	Oct 09
2958-A4U	T6600	2.20	3GB	15.6" WXGA	0.3M	4500MHD	GM45	320GB	DVD±RW	Intel 5100 ²⁸	Black	5-in-1	None	XP Pro	Oct 09

- **15.6" widescreen, glossy display**
- **Integrated 0.3 megapixel camera**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Processor T4300 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6600 with dual-core, 800MHz system bus, and 2MB L2 cache		Preloaded operating system ²⁰ - Windows XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Norton Internet Security™ (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Lenovo Energy Management Software• Corel® WinDVD® (DVD±RW)
Memory	3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;		
Diskette drive	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	250GB (5400 rpm) or 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable		
Widescreen display	15.6" (396.2mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 0.3-megapixel, fixed focus		
Integrated graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500M (GMA 4500M) , in GL40, one VGA DB-15 port; <i>Some:</i> Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 one VGA DB-15 port, one HDMI port (HDCP-compliant); <i>Max external resolution:</i> 2048x1536 @75Hz (DB-15 port)		
Keyboard	Full-size keyboard, Fn keys, recovery key		
Numeric keypad	Numeric keypad on right of keyboard		
Multimedia controls	None		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	(WxDxH): 15.0" x 9.6" x 1.04" to 1.43"; 381mm x 245mm x 26.5 to 36.2mm		
Weight ²	with optical drive and battery: <i>6-cell</i> : from 5.95 lb (2.7 kg)		
Case color	Gray or Black top, black bottom		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	<i>6-cell:</i> up to 3.8 hr		
Chipset	<i>Some:</i> Mobile Intel GL40 Express Chipset (Memory Controller Hub), <i>Some:</i> Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/34	None		
Multicard reader	<i>Some:</i> 5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
Mini PCI Express	One Mini PCI Express slot		
11b/g ¹¹	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI Express Adapter, Broadcom® BCM4312		
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n, Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
Bluetooth™	None		
Modem	None		
Ethernet	10/100 ethernet, Broadcom® BCM5906M		
Audio support	High Definition (HD) Audio, CX20561-12Z codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	Power-on password, hard disk password, supervisor password, security lockhole		
Fingerprint reader	None		

Limited Warranty ¹²	
⇨ 1-year warranty*:	
* 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter	
⇨ Mail In repair service	
⇨ Service upgrade options (in eligible locations): ⁹	
• 3-year Mail In warranty	55Y2507
• 1-year Mail In warranty with ADP	55Y2511
• 3-year Mail In warranty with ADP	55Y2513
• 3-year Onsite warranty	55Y2510
• 1-year Onsite warranty with ADP	55Y2514
⇨ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686	

See footnotes for important warranty information
 US models announced October 23, 2009

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 (APX1-3) November 2009

Type-model	Pro- cessor	GHz	Memory	Widescreen display	Cam- era	Integrated graphics	Chipset	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Card reader	Express- Card	Blue- tooth	Win7 preload	Avail date
2958-ACU	T4300	2.10	3GB	15.6" WXGA	0.3M	4500M	GL40	250GB ⁸	DVD±RW	11b/g ¹¹	Black				Prem 32	Oct 09
2958-A3U	T4300	2.10	4GB	15.6" WXGA	0.3M	4500M	GL40	250GB	DVD±RW	11b/g	Gray		/34		Prem 64	Oct 09
2958-E9U	T6600	2.20	4GB	15.6" WXGA	0.3M	4500MHD	GM45	250GB	DVD±RW	Intel 5100 ²⁸	Gray	5-in-1	/34		Prem 64	Oct 09
2958-R6U	T4300	2.10	3GB	15.6" WXGA	0.3M	4500M	GL40	250GB	DVD±RW	11b/g	Gray		/34		Prem 32	Oct 09
2958-HJU	T4300	2.10	4GB	15.6" WXGA	0.3M	4500M	GL40	320GB	DVD±RW	11b/g	Gray		/34	Blue	Prem 64	Oct 09
2958-HHU	T6600	2.20	2GB	15.6" WXGA	0.3M	4500M	GL40	160GB	DVD±RW	11b/g	Gray		/34		Prem 32	Oct 09
2958-6SU	T4400	2.20	4GB	15.6" WXGA	0.3M	4500M	GL40	320GB	DVD±RW	11b/g	Gray		/34		Prem 64	Dec 09
2958-6TU	T6600	2.20	3GB	15.6" WXGA	0.3M	4500M	GL40	250GB	DVD±RW	11b/g	Gray		/34		Prem 64	Dec 09
2958-FDU	T4400	2.20	4GB	15.6" WXGA	0.3M	4500M	GL40	250GB	DVD±RW	11b/g	Black				Prem 64	Apr 10

- **15.6" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® processor T4300 or T4400 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6600 with dual-core, 800MHz system bus, and 2MB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows 7 Home Premium 32 - Some: Genuine Windows 7 Home Premium 64
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; 1 socket available	Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live™ Toolbar • Easy Capture • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 160GB (5400 rpm), 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable	
Widescreen display Camera	15.6" (396.2mm) WXGA (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus	
Integrated graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500M (GMA 4500M) , in GL40, one VGA DB-15 port; <i>Some:</i> Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, one VGA DB-15 port, one HDMI port (HDCP-compliant); <i>Max external resolution:</i> 2048x1536@75Hz (DB-15 port)	
Keyboard Numeric keypad Multimedia controls Touch pad	Full-size keyboard, Fn keys, recovery key Numeric keypad on right of keyboard <i>Gray models:</i> Touch-sensitive volume control panel Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 15.0" x 9.6" x 1.04" to 1.43"; 381mm x 245mm x 26.5 to 36.2mm with optical drive and battery; <i>6-cell:</i> from 5.95 lb (2.7 kg) Gray or Black top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell <i>6-cell:</i> up to 3.8 hr	65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Chipset	<i>Some:</i> Mobile Intel GL40 Express Chipset (Memory Controller Hub), <i>Some:</i> Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)	Limited Warranty ¹² ⇒ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇒ Mail In repair service ⇒ Service upgrade options (in eligible locations): ⁹ • 3-year Mail In warranty 55Y2507 • 1-year Mail In warranty with ADP 55Y2511 • 3-year Mail In warranty with ADP 55Y2513 • 3-year Onsite warranty 55Y2510 • 1-year Onsite warranty with ADP 55Y2514 ⇒ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
ExpressCard/34 Multicard reader	<i>Some:</i> One slot (ExpressCard/34) <i>Some:</i> 5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)	
Ports	Three USB 2.0, external monitor (HDMI on some models, VGA), ethernet (RJ-45)	
TV tuner Mini PCI Express 11b/g ¹¹ Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None One Mini PCI Express slot <i>Some:</i> 11b/g wireless ⁴ , Mini PCI Express Adapter, Broadcom® BCM4312 <i>Some:</i> 11a/b/g/n, Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator None 10/100 ethernet, Broadcom® BCM5906M High Definition (HD) Audio, CX20561-12Z codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security Fingerprint reader	Power-on password, hard disk password, supervisor password, security lockhole None	

See footnotes for important warranty information

US model announced April 28, 2010; previous models on October 23 or December 17, 2009

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(APX1-2) April 2010

Type-model	Pro- cessor	GHz	Memory	Widescreen display	Cam- era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Numeric Keypad	Blue- tooth	Battery cells	Win7 preload	Avail date
0873-25U	M320	2.10	3GB	15.6" HD	0.3M	HD 4200	160GB ⁸	DVD±RW	11b/g/n ²⁸	Black	Keypad	None	6-cell	Prem 32	Feb 10

- **15.6" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	Widescreen flexibility; two-spindle AMD® Athlon™ II Dual-Core processor M320 with dual-core , integrated DDR2 memory controller, and 1MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows 7 Home Premium 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• CyberLink YouCam• VeriFace™• Lenovo Energy Management Software• Lenovo DirectShare• Cyberlink Power2Go (DVD±RW)
Memory	3GB std / 4GB max ⁷ / PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 160GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		
Widescreen display display Camera	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy), CCFL backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus		
Integrated graphics	ATI™ Mobility Radeon™ HD 4200 Graphics , in M880G, external analog monitor support via VGA DB-15 connector		65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant Limited Warranty ¹² ⇨ 1-year warranty* : * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇨ Mail In repair service ⇨ Service upgrade options ⁵⁸ (in eligible locations): ⁹ <ul style="list-style-type: none">• 3-year Mail In warranty 55Y2507• 1-year Mail In with accidental damage protection 55Y2511• 3-year Mail In with accidental damage protection 55Y2513• 3-year Onsite warranty 55Y2510• 1-year Onsite with accidental damage protection 55Y2514 ⇨ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Keyboard Numeric keypad Multimedia controls Touch pad	Full-size keyboard, 6-row, recovery key Numeric keypad on right of keyboard Multimedia Fn keys Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 15.0" x 9.6" x 1.04" to 1.43"; 381mm x 245mm x 26.5 to 36.2mm with optical drive and battery: <i>6-cell</i> : from 5.95 lb (2.7 kg) Black top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell <i>6-cell</i> : up to 4 hr		
Chipset ExpressCard/34 Multicard reader	AMD M880G Chipset , SB710 south bridge None 5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner PCIe Mini Card 11b/g/n ²⁸ Bluetooth™ Modem Ethernet Audio support	None One PCI Express Mini Card slot 11b/g/n wireless ⁴ , PCIe Mini Card Adapter None None 10/100 ethernet, ATHEROS® AR8132 High Definition (HD) Audio, CX20561-12Z codec / stereo speakers (2 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security Fingerprint reader	Power-on password, hard disk password, supervisor password, security lockhole None		

See footnotes for important warranty information
US model announced February 23, 2010

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Type-model	Pro- cessor	GHz	Memory	Widescreen display	Cam- era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Numeric Keypad	Blue- tooth	Battery cells	Win7 preload	Avail date
0873-72U	M520	2.30	3GB	15.6" HD	0.3M	HD 4200	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	Keypad	Blue	6-cell	Prem 32	Feb 10

- **15.6" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processor	<i>Widescreen flexibility; two-spindle</i> AMD® Turion™ II Dual-Core Mobile processor M520 with dual-core, integrated DDR2 memory controller, and 1MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows 7 Home Premium 32
Memory	3GB std / 4GB max ⁷ / PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive	None	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high	Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• CyberLink YouCam• VeriFace™• Lenovo Energy Management Software• Lenovo DirectShare• Cyberlink Power2Go (DVD±RW)
SATA DVD±RW			
SATA disk			
Widescreen display	15.6" (396.2mm) HD (WXGA 1366x768) TFT color, VibrantView (glossy), CCFL backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Camera	Camera on top of screen, 0.3-megapixel, fixed focus		
Integrated graphics	ATI™ Mobility Radeon™ HD 4200 Graphics , in M880G, external analog monitor support via VGA DB-15 connector		<div>Limited Warranty¹²</div> <div>⇨ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter</div> <div>⇨ Mail In repair service</div> <div>⇨ Service upgrade options⁵⁸ (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Mail In warranty 55Y2507• 1-year Mail In with accidental damage protection 55Y2511• 3-year Mail In with accidental damage protection 55Y2513• 3-year Onsite warranty 55Y2510• 1-year Onsite with accidental damage protection 55Y2514</div> <div>⇨ Toll-free support for warranty issues during the warranty period¹² via 877-453-6686</div>
Keyboard	Full-size keyboard, 6-row, recovery key		
Numeric keypad	Numeric keypad on right of keyboard		
Multimedia controls	Multimedia Fn keys		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	<i>(WxDxH):</i> 15.0" x 9.6" x 1.04" to 1.43"; 381mm x 245mm x 26.5 to 36.2mm		
Weight ²	with optical drive and battery: <i>6-cell:</i> from 5.95 lb (2.7 kg)		
Case color	Black top, black bottom		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	<i>6-cell:</i> up to 4 hr		
Chipset	AMD M880G Chipset , SB710 south bridge		
ExpressCard/34	None		
Multicard reader	5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	One PCI Express Mini Card slot		
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card Adapter		
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface		
Modem	None		
Ethernet	10/100 ethernet, ATHEROS® AR8132		
Audio support	High Definition (HD) Audio, CX20561-12Z codec / stereo speakers (2 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	Power-on password, hard disk password, supervisor password, security lockhole		
Fingerprint reader	None		

See footnotes for important warranty information
US model announced February 23, 2010

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lenovo



Lenovo G460



Lenovo G460



Lenovo G460



Lenovo G560

Type-model	Pro- cessor	GHz	Memory	Widescreen display	Cam- era	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	HDMI connector	Blue- tooth	Battery cells	Win7 preload	Avail date
0677-2GU	i3-330M	2.13	4GB	14.0" HD	0.3M	Intel HD	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	HDMI	Blue	6-cell	Prem 64	Jan 10
<ul style="list-style-type: none">• 14.0" widescreen, glossy display• Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face• Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows															
Positioning Processo	<i>Widescreen flexibility; two-spindle</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Home Premium 64				
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• ooVoo™• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• CyberLink YouCam• Microsoft® Office 2007 Trial (60-day)• VeriFace™• Lenovo Energy Management Software• Lenovo DirectShare• Cyberlink Power2Go (DVD±RW)				
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high										65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant				
Widescreen display Camera	14.0" (355.6mm) HD (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor , external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI connector										Limited Warranty¹² ⇨ 1-year warranty*: * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇨ Mail In repair service ⇨ Service upgrade options⁵⁸ (in eligible locations): ⁹ <ul style="list-style-type: none">• 3-year Mail In warranty 55Y2507• 1-year Mail In with accidental damage protection 55Y2511• 3-year Mail In with accidental damage protection 55Y2513• 3-year Onsite warranty 55Y2510• 1-year Onsite with accidental damage protection 55Y2514 ⇨ Toll-free support for warranty issues during the warranty period¹² via 877-453-6686				
Keyboard Numeric keypad Touch controls Touch pad	Full-size keyboard, multimedia Fn keys, recovery key None OneKey Theater, mute, volume up, and volume down buttons One-piece touch pad with two button function, supports scroll feature														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>(WxDxH):</i> 13.4" x 9.13" x 0.68" to 1.35"; 340.0mm x 231.8mm x 17.2 to 34.4mm with optical drive and battery: <i>6-cell:</i> from 4.85 lb (2.2kg) Black top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell <i>6-cell:</i> up to 4 hr														
Chipset ExpressCard/34 Multicard reader	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)														
Ports	Two USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)														
TV tuner PCIe Mini Card 11b/g/n ²⁸ Bluetooth™ Modem Ethernet Audio support	None One PCI Express Mini Card slot 11b/g/n wireless ⁴ , PCIe Mini Card adapter Bluetooth 2.1 wireless, USB 2.0 interface None 10/100 ethernet, RealTek® RTL8103EL High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)														
Security Fingerprint reader	Power-on password, hard disk password, supervisor password, security lockhole None														

See footnotes for important warranty information
 US model announced January 26, 2010

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Type-model	Pro-cessor	GHz	Max turbo (GHz)	Memory	Widescreen display	Cam-era	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	HDMI con-necter	Blue-tooth	Battery cells	Win7 preload	Avail date
0679-3JU	i5-430M	2.26	2.53	4GB	15.6" HD	0.3M	Intel HD	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	HDMI	None	6-cell	Prem 64	Apr 10

- **15.6" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processo	Widescreen flexibility; two-spindle Intel® Core™ i5 processor i5-430M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64	
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • ooVoo™ • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Lenovo DirectShare • Cyberlink Power2Go (DVD±RW)	
Diskette drive	None		65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant	
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in			
SATA disk	320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high			
Widescreen display	15.6" (396.2mm) HD (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		Limited Warranty ¹² ⇨ 1-year warranty* : * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇨ Mail In repair service ⇨ Service upgrade options ⁵⁸ (in eligible locations): ⁹ • 3-year Mail In warranty 55Y2507 • 1-year Mail In with accidental damage protection 55Y2511 • 3-year Mail In with accidental damage protection 55Y2513 • 3-year Onsite warranty 55Y2510 • 1-year Onsite with accidental damage protection 55Y2514 ⇨ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus			
Integrated graphics	Intel HD Graphics in processor , external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI connector			
Keyboard	Full-size keyboard, multimedia Fn keys, recovery key			
Numeric keypad	Numeric keypad on right of keyboard			
Touch controls	OneKey Theater, mute, volume up, and volume down buttons			
Touch pad	One-piece touch pad with two button function, supports scroll feature			
Dimensions ³	(WxDxH): 14.83" x 9.83" x 0.68" to 1.37"; 376.8mm x 249.8mm x 17.3 to 34.9mm			
Weight ²	with optical drive and battery: 6-cell : from 5.73 lb (2.6kg)			
Case color	Black top, black bottom			
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic			
Battery - type	Lithium Ion 6-cell			
Battery - life ¹⁰	6-cell : up to 4 hr			
Chipset	Mobile Intel HM55 Express Chipset			
ExpressCard/34	One slot (ExpressCard/34)			
Multicard reader	5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)			
Ports	Two USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
TV tuner	None			
PCIe Mini Card	One PCI Express Mini Card slot			
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card adapter			
Bluetooth™	None			
Modem	None			
Ethernet	10/100 ethernet, RealTek® RTL8103EL			
Audio support	High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)			
Security	Power-on password, hard disk password, supervisor password, security lockhole			
Fingerprint reader	None			

See footnotes for important warranty information
 US model announced April 7, 2010

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Type-model	Pro- cessor	GHz	Memory	Widescreen display	Cam- era	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	HDMI connector	Blue- tooth	Battery cells	Win7 preload	Avail date
0679-2AU	i3-330M	2.13	4GB	15.6" HD	0.3M	Intel HD	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	HDMI	None	6-cell	Prem 64	Jan 10

- **15.6" widescreen, glossy display**
- **Integrated 0.3 megapixel camera and Lenovo's VeriFace facial recognition software helps control access to your notebook by recognizing your face**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Positioning Processo	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology, and 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64	
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Lenovo ReadyComm • ooVoo™ • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • CyberLink YouCam • Microsoft® Office 2007 Trial (60-day) • VeriFace™ • Lenovo Energy Management Software • Lenovo DirectShare • Cyberlink Power2Go (DVD±RW)	
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant	
Widescreen display Camera	15.6" (396.2mm) HD (1366x768) TFT color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus			
Integrated graphics	Intel HD Graphics in processor , external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI connector		Limited Warranty ¹² ⇨ 1-year warranty* : * 1- year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter ⇨ Mail In repair service ⇨ Service upgrade options ⁵⁸ (in eligible locations): ⁹ • 3-year Mail In warranty 55Y2507 • 1-year Mail In with accidental damage protection 55Y2511 • 3-year Mail In with accidental damage protection 55Y2513 • 3-year Onsite warranty 55Y2510 • 1-year Onsite with accidental damage protection 55Y2514 ⇨ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686	
Keyboard Numeric keypad Touch controls Touch pad	Full-size keyboard, multimedia Fn keys, recovery key Numeric keypad on right of keyboard OneKey Theater, mute, volume up, and volume down buttons One-piece touch pad with two button function, supports scroll feature			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 14.83" x 9.83" x 0.68" to 1.37"; 376.8mm x 249.8mm x 17.3 to 34.9mm with optical drive and battery: <i>6-cell</i> : from 5.73 lb (2.6kg) Black top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell <i>6-cell</i> : up to 4 hr			
Chipset ExpressCard/34 Multicard reader	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 5-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card, xD-Picture Card™)			
Ports	Two USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
TV tuner PCIe Mini Card 11b/g/n ²⁸ Bluetooth™ Modem Ethernet Audio support	None One PCI Express Mini Card slot 11b/g/n wireless ⁴ , PCIe Mini Card adapter None None 10/100 ethernet, RealTek® RTL8103EL High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm) Power-on password, hard disk password, supervisor password, security lockhole			
Security Fingerprint reader	None			

See footnotes for important warranty information
 US model announced January 26, 2010

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Partial list of Lenovo® Care Services²²
for Lenovo Essential notebooks

For more information see:
http://www.lenovo.com/services_warranty/us/en/index.html

Lenovo Care service upgrade options

Lenovo Value Line notebooks with 1-year Mail In warranty

Mail in = Mail In repair, ADP = Accidental Damage Protection

2-year Mail In warranty	55Y2506
3-year Mail In warranty	55Y2507
1-year Mail In warranty with ADP	55Y2511
2-year Mail In warranty with ADP	55Y2512
3-year Mail In warranty with ADP	55Y2513

LOR = Lenovo Onsite Repair, ADP = Accidental Damage Protection

1-year LOR warranty 9x5 NBD	55Y2508
2-year LOR warranty 9x5 NBD	55Y2509
3-year LOR warranty 9x5 NBD	55Y2510
1-year LOR warranty 9x5 NBD with ADP	55Y2514
2-year LOR warranty 9x5 NBD with ADP	55Y2515
3-year LOR warranty 9x5 NBD with ADP	55Y2516

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

Footnotes:

- ¹ Power management, including Intel® SpeedStep® Technology, reduces processor speed when in battery mode.
- ² **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.
- ³ **Thinness** may vary at certain points on the system.
- ⁴ **Wireless capability:** Requires compatible wireless-enabled options sold separately.
- ⁵ **Post-warranty annual maintenance agreement:** Service begins at the end of the base warranty or the end of any other applied warranty and maintenance option, whichever occurs last. Service delivery is not available the same day the maintenance agreement is purchased. Maintenance agreements must be purchased and the registration successfully completed prior to the service being available.
- ⁶ **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. Even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.
- ⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
- ⁹ **Service upgrade options:** Upgrades do not apply to components covered for 90 days. Those remain at 90-day warranty
- ¹⁰ **Battery:** These model numbers achieved Battery Rundown Time of at least the time shown during testing. A description of the testing available at lenovo.com/pc/www/thinkpad/batterylife. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.
- ¹¹ **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.
- ¹² **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.
- ¹³ **Onsite Service:** If a machine is listed as having "On-site", this means that on-site service is available for the replacement of parts for warranty repairs. Certain parts, referred to as Customer Replaceable Unit ("CRU") parts, are easy to install and require little or no tools or technical knowledge. Some examples of CRU parts are mice, keyboards, hard disk drives, speakers, and memory. If your problem can be resolved with a CRU, the Support Center will offer to ship the part to you for you to install.
- ¹⁴ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.
- ¹⁵ **Modem speeds:** Public network download speeds are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ¹⁶ **International Warranty Service** is available for most products in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.
- ¹⁷ **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary and may exclude some holidays.
- ¹⁸ **EasyServ depot repair:** The customer may be asked certain diagnostic questions before a courier is sent. Your purchase includes this depot repair service, available in the U.S. during the limited warranty period.
- ¹⁹ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.
- ²⁰ **For combination drives,** maximum possible speeds only are given in the following order: CD write, CD rewrite, CD read, DVD read.
- ²¹ **Lenovo Care Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part can be express shipped to you for quick replacement. For notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See terms and conditions for complete details and restrictions.
- ²² **Wireless WAN Cards:** Wireless data service requires separate agreement with Verizon Wireless. Verizon Wireless, not Lenovo, is solely responsible for service. Monthly and airtime charges may apply. Service may not be available in all areas; purchaser is responsible for verifying with Verizon Wireless that service is available for the intended location before the purchase of the card. For complete details, including service plans, additional required hardware or software, and service coverage, visit www.verizonwireless.com.

²⁸ **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.

⁵⁸ **Service upgrade options for Split Warranty:** (1) Mail In upgrades cover all components except power adapter, keyboard, plastics, and hinges after 90 days through end of first year. The "Mail-In" upgrades require customer to pay the leg of shipping into the depot repair center. (2) Onsite upgrades cover all components except power adapter, keyboard, plastics, and hinges after 90 days through end of term selected. (3) Accidental Damage Protection covers all components through the end of the term selected.

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ENERGY STAR: As an ENERGY STAR Partner, Lenovo has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

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Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

April 2010
3book.pdf



Personal Systems Reference Lenovo® Essential Desktops

April 2010 - Version 376



C200 series All-In-One



C315 series All-In-One

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Lenovo C100



Lenovo C100



Lenovo C100

Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	Graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Color	Blue-tooth	KBD	Mouse	Preload	Avail date
7869-1AU	Atom 230	1.60	1GB	18.5" WXGA	1.3	GMA	160GB ⁸	DVD±RW	11b/g ²⁸	Black	None	PS/2	USB	XP Home	Sep 09
7869-1EU	Atom 230	1.60	1GB	18.5" WXGA	1.3	GMA	160GB	DVD±RW		Black	None	PS/2	USB	XP Home	Sep 09
7869-1CU	Atom 330	1.60	2GB	18.5" WXGA	1.3	GMA	320GB	DVD±RW		Black	None	PS/2	USB	Home Basic	Sep 09

- **All-In-One design with 18.5" 16:9 widescreen**
- **Lenovo® Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Atom™ processor 230 with single-core, Hyper-Threading technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 512KB L2 cache or Intel Atom processor 330 with dual-core, Hyper-Threading technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache	Preloaded operating system ²⁰ <ul style="list-style-type: none">- Some: Genuine Windows® XP Home Edition- Some: Genuine Windows Vista® Home Basic 32 Preloaded applications ¹⁴ <ul style="list-style-type: none">• Lenovo OneKey Recovery• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• Windows Live™ Toolbar (Vista Models)• Cyberlink Power2Go (DVD±RW)• Corel® WinDVD®
Memory	1GB or 2GB std / 2GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, one 200-pin SO-DIMM socket; standard memory in one socket; no sockets available	
SATA DVD±RW	DVD burner, dual-layer support, fixed, removable, 12.7mm, tray-in	
SATA disk	160GB or 320GB, SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
Widescreen display	18.5" (470.1mm) WXGA (1366x768) TFT color, anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, with mono microphone	
Controls	Power button on right	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950), integrated graphics in 945GC, uses main memory	
Chipset	Intel 945GC Express Chipset, I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, ethernet MAC, USB, LPC bus)	
Multicard reader	None	
Ports	Rear: Two USB 2.0, ethernet (RJ-45), keyboard (PS/2), microphone input jack (3.5 mm), headphone jack (3.5 mm) Left: Two USB 2.0	
Mini PCI Express	One Mini PCI Express slot	65-watt AC adapter RoHS-compliant
11b/g ²⁸	Some: 11b/g wireless ⁴ , Mini PCIe adapter, Realtek® RTL8191SE	Limited Warranty ¹² <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts²³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
TV tuner	None	
Bluetooth™	None	
Modem	None	
Ethernet	10/100 ethernet on planar, Realtek 8103EL	
Audio support	High Definition (HD) Audio, RealTek® ALC662 codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Supervisor password	
Keyboard	PS/2 full-size keyboard	
Mouse	USB Optical Wheel Mouse	
Remote control	None	
Dimensions ³	(WxHxD): 18.5" x 14.6" x 3.98"; 469mm x 370mm x 101mm	
Weight ²	13.22 lb (6.0 kg)	
Chassis	Black color	
Stand	Basic folding stand (adjustable between 35° and 54°)	

See footnotes for important warranty information
US models announced September 15, 2009

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(PH1-1) October 2009



Lenovo C200
Black



Lenovo C200
Black



Lenovo C200
Black

Type-model	Processor	GHz	Memory	Wide-screen display	Touch screen	Camera (mega-pixel)	Integrated graphics	SATA disk	SATA optical	TV tuner	Remote control	PCIe Mini Card 802.11	Blue-tooth	Preload	Avail date
4025-1AU	Atom D410	1.66	1GB	18.5" HD	None	0.3M	GMA 3150	160GB ⁸	DVD±RW	None	None	11b/g/n ²⁸	None	XP Home	Apr 10

- **All-In-One design with 18.5" 16:9 wide screen**
- **Lenovo® Rescue System provides OneKey recovery without booting into Windows**
- **Easily adjustable stand (-5° to +25° viewing angle)**

Processor	Intel® Atom™ Processor D410 with single-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 800MHz) Hyper-Threading Technology, and 512KB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® XP Home Edition Preloaded applications ¹⁴ (only some listed) • Lenovo OneKey Recovery • Driver and Application Installation • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Cyberlink Power2Go (DVD±RW) • Corel® WinDVD®
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-Italics</i> : standard memory in one sockets; one socket available	
SATA DVD±RW	DVD burner, dual-layer support, fixed, removable, 12.7mm, tray-in	
SATA disk	160GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
Widescreen display	18.5" (470mm) HD (1366x768) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, with mono microphone	
Controls	Power button, brightness up, brightness down, and display on/off buttons	65-watt AC adapter RoHS-compliant
Integrated graphics	Intel Graphics Media Accelerator 3150 (GMA 3150) , integrated graphics in processor, uses main memory	
Chipset	Intel NM10 Express Chipset	Limited Warranty ¹² ➤ 1-year parts and labor ➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ²³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ➤ Service upgrade options (in eligible locations): ⁹ • 2-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1552) • 3-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1553) ➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital High Capacity, xD-Picture Card™)	
Ports	<i>Rear</i> : Three USB 2.0, ethernet (RJ-45), keyboard (PS/2), <i>Side</i> : Two USB 2.0	
PCIe Mini Card	One Mini PCI Express Mini Card slot	
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, Broadcom® BCM4313 or Atheros AR9285	
TV tuner	None	
Bluetooth™	None	
Modem	None	
Ethernet	10/100 ethernet on planar, Intel® 82552V	
Audio support	High Definition (HD) Audio, RealTek® ALC662 codec / two stereo speakers (3 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, supervisor password, security lockhole	
Keyboard	PS/2 full-size keyboard, black	
Mouse	USB Optical Wheel Mouse, black	
Remote control	None	
Dimensions ³	(WxHxD) including stand: 18.12" x 15.13" x 6.63"; 460.3mm x 384.3mm x 168.3mm	
Weight ²	16.01 lb (7.26kg)	
Chassis	Front bezel: black color; back bezel: black color	
Stand	Easily adjustable stand (-5° to +25° viewing angle)	

See footnotes for important warranty information
US model announced April 28, 2010

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(MAUI1-1) April 2010

Type-model	Processor	GHz	Memory	Wide-screen display	Touch screen	Camera (mega-pixel)	Discrete graphics	SATA disk	SATA optical	TV tuner	Remote control	PCIe Mini Card 802.11	Blue-tooth	Win7 preload	Avail date
4025-1BU	Atom D510	1.66	2GB	18.5" HD		0.3M	NVIDIA ION	320GB ⁸	DVD±RW	None	None	11b/g/n ²⁸	None	Prem 32	Apr 10
4025-1CU	Atom D510	1.66	2GB	18.5" HD	Touch	0.3M	NVIDIA ION	320GB	DVD±RW	None	None	11b/g/n	None	Prem 32	Apr 10

- **All-In-One design with 18.5" 16:9 wide screen**
- **Some: touchscreen supports one-finger touch**
- **Lenovo® Rescue System provides OneKey recovery without booting into Windows**
- **Easily adjustable stand (-5° to +25° viewing angle)**

Processor	Intel® Atom™ Processor D510 with dual-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 800MHz) Hyper-Threading Technology, and 1MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Driver and Application Installation• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Cyberlink Power2Go (DVD±RW)• Corel® WinDVD®• Lenovo IdeaTouch (Touch models) – Lenovo VeriTouch• Windows Live Essential• Microsoft® Office 2007 Trial (60-day)
Memory	2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-Italics:</i> standard memory in one sockets; one sockets available	
SATA DVD±RW SATA disk	DVD burner, dual-layer support, fixed, removable, 12.7mm, tray-in 320GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
Widescreen display	18.5" (470mm) HD (1366x768) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio; <i>Some:</i> touchscreen supports one-finger touch	
Camera Controls	Camera on top of screen, 0.3-megapixel, fixed focus, with mono microphone Power button, brightness up, brightness down, and display on/off buttons	
Discrete Graphics	NVIDIA® ION™ graphics processor , DirectX 10, PureVideo® HD technology, 256MB memory	65-watt AC adapter RoHS-compliant Limited Warranty ¹² <ul style="list-style-type: none">➤ 1-year parts and labor➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts²³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 2-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1552)• 3-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1553)➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Chipset	Intel NM10 Express Chipset	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital High Capacity, xD-Picture Card™)	
Ports	<i>Rear:</i> Three USB 2.0, ethernet (RJ-45), keyboard (PS/2), <i>Side:</i> Two USB 2.0	
PCIe Mini Card	One Mini PCI Express Mini Card slot	
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, Broadcom® BCM4313 or Atheros AR9285	
TV tuner	None	
Bluetooth™	None	
Modem	None	
Ethernet	10/100 ethernet on planar, Intel® 82552V	
Audio support	High Definition (HD) Audio, RealTek® ALC662 codec / two stereo speakers (3 watt x 2) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, supervisor password, security lockhole	
Keyboard	PS/2 full-size keyboard, black	
Mouse	USB Optical Wheel Mouse, black	
Remote control	None	
Dimensions ³ Weight ¹²	<i>(WxHxD) including stand:</i> 18.12" x 15.13" x 6.63"; 460.3mm x 384.3mm x 168.3mm <i>Non-touchscreen model:</i> 16.01 lb (7.26kg); <i>Touchscreen model:</i> 17.11 lb (7.76kg)	
Chassis Stand	Front bezel: black color; back bezel: black color Easily adjustable stand (-5° to +25° viewing angle)	

See footnotes for important warranty information
US models announced April 28, 2010

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(MAUI1-2) April 2010



Lenovo C300



Lenovo C300



Lenovo C300



Lenovo C300



Lenovo C300



Lenovo C300

Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	Graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Color	Blue-tooth	KBD	Mouse	Preload	Avail date
3012-1AU	Atom 230	1.60	1GB	20" WXGA++	1.3	GMA	160GB ⁸	DVD±RW	11b/g ²⁸	Black	None	PS/2	USB	XP Home	Jun 09
3012-1JU	Atom 230	1.60	1GB	20" WXGA++	1.3	GMA	160GB	DVD±RW	11b/g	Black	None	PS/2	USB	XP Home	Sep 09
3012-1OU	Atom 230	1.60	2GB	20" WXGA++	1.3	GMA	320GB	DVD±RW	11b/g	Black	None	PS/2	USB	Home Basic	Sep 09
3012-1EU	Atom 230	1.60	3GB	20" WXGA++	1.3	GMA	320GB	DVD±RW	11b/g	Black	None	PS/2	USB	Home Basic	Jun 09
3012-1RU	Atom 230	1.60	3GB	20" WXGA++	1.3	GMA	500GB	DVD±RW	11b/g	Black	None	PS/2	USB	Prem 32	Sep 09
3012-2DU	Atom 330	1.60	4GB	20" WXGA++	1.3	HD 4530	640GB	DVD±RW	11b/g	Black	None	PS/2	USB	Prem 32	Jun 09

- **All-In-One design with 20" 16:9 widescreen**
- **Lenovo® Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **Advanced hinge design allows changing the screen angle with only one hand, and resting the screen angle at any intermediate position between 12° and 40°**

Processor	Intel® Atom™ processor 230 with single-core, Hyper-Threading technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 512KB L2 cache or Intel Atom processor 330 with dual-core, Hyper-Threading technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache	Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® XP Home Edition- <i>Some:</i> Genuine Windows Vista® Home Basic 32- <i>Some:</i> Genuine Windows Vista Home Premium 32 Preloaded applications ¹⁴ <ul style="list-style-type: none">• Lenovo OneKey Recovery• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• Windows Live™ Toolbar (Vista Models)• Cyberlink Power2Go (DVD±RW)• Corel® WinDVD®
Memory	1GB, 3GB, or 4GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW	DVD burner, dual-layer support, fixed, removable, 12.7mm, tray-in	
SATA disk	160GB, 320GB, 500GB, or 640GB, SATA 3.0Gb/s, 3.5" wide, 7200 rpm	
Widescreen display	20" (508mm) WXGA++ (1600x900) TFT color, anti-glare, CCFL backlight, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, with mono microphone	
Controls	Brightness up/down buttons, display on/off button, and power button	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 (GMA 950), integrated graphics in 945GC, uses main memory <i>Some:</i> ATI™ Mobility Radeon™ HD 4530, PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD	
Chipset	Intel 945GC Express Chipset, I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, ethernet MAC, USB, LPC bus)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Left:</i> Two USB 2.0	
Mini PCI Express	One Mini PCI Express slot	Available at these retailers <ul style="list-style-type: none">• lenovo.com 120-watt AC adapter RoHS-compliant
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312	
TV tuner	None	
Bluetooth™	None	
Modem	None	
Ethernet	10/100 ethernet on planar, Intel 82562G	
Audio support	High Definition (HD) Audio, RealTek® ALC662 codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, supervisor password, security lockhole	
Keyboard	PS/2 full-size keyboard	
Mouse	USB Optical Wheel Mouse	
Remote control	None	
Dimensions ³	(WxHxD): 19.05" x 14.12" x 3.28"; 484mm x 359mm x 83mm	Limited Warranty ¹² <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts²³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Weight ²	13.8 lb (6.26 kg)	
Chassis	Black color	
Stand	Fold-away stand (adjustable between 12° and 40°)	

See footnotes for important warranty information

US models announced September 10, 2009; previous models on June 24, 2009

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(CRB1-1) September 2009

Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	Discrete graphics	SATA disk	SATA optical	TV tuner	Remote control	Mini PCIe 802.11 wireless	Color	Blue-tooth	Win7 preload	Avail date
3012-2VU	Atom 330	1.60	2GB	20" WXGA++	1.3M	HD 4530	320GB ⁸	DVD±RW	None	None	11b/g ²⁸	Black	None	Prem 32	Dec 09
3012-2KU	Atom 330	1.60	3GB	20" WXGA++	1.3M	HD 4530	500GB	DVD±RW	None	None	11b/g	Black	None	Prem 32	Nov 09

- **All-In-One design with 20" 16:9 widescreen**
- **Lenovo® Rescue System provides OneKey recovery without booting into Windows**
- **Advanced hinge design allows changing the screen angle with only one hand, and resting the screen angle at any intermediate position between 12° and 40°**

Processor	Intel® Atom™ processor 330 with dual-core, Hyper-Threading Technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Driver and Application Installation• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Cyberlink Power2Go (DVD±RW)• Corel® WinDVD®
Memory	2GB or 3GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-Italics:</i> standard memory in one sockets; one sockets available	
SATA DVD±RW	DVD burner, dual-layer support, fixed, removable, 12.7mm, tray-in	
SATA disk	320GB or 500GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm	
Widescreen display	20" (508mm) WXGA++ (1600x900) TFT color , anti-glare, CCFL backlight, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, with mono microphone	120-watt AC adapter RoHS-compliant Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ²³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ Service upgrade options (in eligible locations): ⁹ <ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882) ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Controls	Brightness up/down buttons, display on/off buttons, and power button	
Discrete Graphics	ATI™ Mobility Radeon™ HD 4530 , PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD	
Chipset	Intel 945GC Express Chipset , I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, ethernet MAC, USB, LPC bus)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Left:</i> Two USB 2.0	
Mini PCI Express	One Mini PCI Express slot	
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312	
TV tuner	None	
Bluetooth™	None	
Modem	None	
Ethernet	10/100 ethernet on planar, Intel 82562G	
Audio support	High Definition (HD) Audio, RealTek® ALC662 codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, supervisor password, security lockhole	
Keyboard	PS/2 full-size keyboard	
Mouse	USB Optical Wheel Mouse	
Remote control	None	
Dimensions ³	(WxHxD): 19.05" x 14.12" x 3.28"; 484mm x 359mm x 83mm	
Weight ²	13.8 lb (6.26 kg)	
Chassis	Black color	
Stand	Fold-away stand (adjustable between 12° and 40°)	

See footnotes for important warranty information

US model announced December 17, 2009; previous model on November 3, 2009

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(CRB1-2) December 2009



Lenovo C315



Lenovo C315



Lenovo C315



Lenovo C315

Type-model	Processor	GHz	Memory	Wide-screen display	Multi-Touch screen	Camera (mega-pixel)	Discrete graphics	SATA disk	SATA optical	TV tuner	Remote control	PCIe Mini Card 802.11	Blue-tooth	Win7 preload	Avail date
4022-1AU	Athlon II X2 250u	1.60	2GB	20" HD+	Multi	0.3M	HD 4530	320GB ⁸	DVD±RW	None	None	11b/g ²⁸	None	Prem 32	Apr 10

- **All-In-One design with 20" 16:9 multi-touch screen**
- **Lenovo® Rescue System provides OneKey recovery without booting into Windows**
- **Advanced hinge design allows changing the screen angle with only one hand, and resting the screen angle at any intermediate position between 12° and 40°**

Processor	AMD® Athlon™ II X2 Processor 250u with dual-core, 3200MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR2 memory controller, and 2MB L2 cache (1MB per core)	Preloaded operating system²⁰ - Genuine Windows® 7 Home Premium 32
Memory	2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-Italics</i> : standard memory in one sockets; one socket available	Preloaded applications¹⁴ (only some listed) • Lenovo OneKey Recovery • Driver and Application Installation • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Cyberlink Power2Go (DVD±RW) • Lenovo IdeaTouch – PowerCinema – Lenovo VeriTouch – AutoCollage Touch • Windows Live Essential • Microsoft® Office 2007 Trial (60-day)
SATA DVD±RW disk	DVD burner, dual-layer support, fixed, removable, 12.7mm, tray-in 320GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm	
Widescreen display	20" (508mm) HD+ (1600x900) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, MultiTouch	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, with mono microphone	
Controls	Power button, touch-sensitive buttons for brightness +/-, volume +/-, and display on/off	
Discrete Graphics	ATI™ Mobility Radeon™ HD 4530 , PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD	
Chipset	AMD 690M Chipset , SB600 south bridge	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	<i>Rear</i> : Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Side</i> : Two USB 2.0	120-watt AC adapter RoHS-compliant
PCIe Mini Card	Two Mini PCI Express Mini Card slots	Limited Warranty¹²
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312	⇒ 1-year parts and labor
TV tuner	None	⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts²³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
Bluetooth™	None	⇒ Service upgrade options (in eligible locations):⁹
Modem	None	• 2-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1552)
Ethernet	10/100 ethernet on planar, Broadcom® BCM5787	• 3-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1553)
Audio support	High Definition (HD) Audio, RealTek® ALC262 codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Security	Power-on password, supervisor password, security lockhole	
Keyboard	PS/2 full-size keyboard, black	
Mouse	USB Optical Wheel Mouse, black	
Remote control	None	
Dimensions ³	(WxHxD): 19.05" x 14.12" x 2.56"; 484mm x 359mm x 65mm	
Weight ²	16.3 lb (7.4 kg)	
Chassis	Front bezel: brown color; back bezel: black color	
Stand	Fold-away stand (adjustable between 12° and 40°)	

See footnotes for important warranty information
US model announced April 28, 2010

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(BHM1-2) April 2010

Lenovo® C315 (4022) - Windows 7 (Web models)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Multi-Touch screen	Camera (mega-pixel)	Discrete graphics	SATA disk	SATA optical	TV tuner	Remote control	PCIe Mini Card 802.11	Blue-tooth	Win7 preload	Avail date
4022-1FU	Athlon II X2 250u	1.60	2GB	20" HD+	Multi	0.3M	HD 4530	320GB ⁸	DVD±RW	TV	Remote	11b/g ²⁸	None	Prem 32	Apr 10
4022-1GU	Athlon II X2 250u	1.60	4GB	20" HD+	Multi	0.3M	HD 4530	500GB	DVD±RW	TV	Remote	11b/g	None	Prem 64	Apr 10

- **All-In-One design with 20" 16:9 multi-touch screen**
- **Lenovo® Rescue System provides OneKey recovery without booting into Windows**
- **Advanced hinge design allows changing the screen angle with only one hand, and resting the screen angle at any intermediate position between 12° and 40°**

Processor	AMD® Athlon™ II X2 Processor 250u with dual-core, 3200MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR2 memory controller, and 2MB L2 cache (1MB per core)		Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® 7 Home Premium 32- <i>Some:</i> Genuine Windows 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Driver and Application Installation• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Cyberlink Power2Go (DVD±RW)• Lenovo IdeaTouch<ul style="list-style-type: none">– PowerCinema– Lenovo VeriTouch– AutoCollage Touch• Windows Live Essential• Microsoft® Office 2007 Trial (60-day)
Memory	2GB or 4GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-Italics:</i> standard memory in one sockets; one socket available		
SATA DVD±RW	DVD burner, dual-layer support, fixed, removable, 12.7mm, tray-in		
SATA disk	320GB or 500GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm		
Widescreen display	20" (508mm) HD+ (1600x900) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, MultiTouch		
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, with mono microphone		
Controls	Power button, touch-sensitive buttons for brightness +/-, volume +/-, and display on/off		
Discrete Graphics	ATI™ Mobility Radeon™ HD 4530 , PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD		
Chipset	AMD 690M Chipset , SB600 south bridge		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), TV antenna connector, IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Side:</i> Two USB 2.0		
PCIe Mini Card	Two Mini PCI Express Mini Card slots		
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312		
TV tuner	AverMedia Hybrid TV MiniCard A317, PCIe Mini Card adapter, supports analog (NTSC) and digital (ATSC) signal		
Bluetooth™	None		
Modem	None		
Ethernet	10/100 ethernet on planar, Broadcom® BCM5787		
Audio support	High Definition (HD) Audio, RealTek® ALC262 codec / two stereo speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	Power-on password, supervisor password, security lockhole		
Keyboard	PS/2 full-size keyboard, black		
Mouse	USB Optical Wheel Mouse, black		
Remote control	Philips®Win7 MCE remote control (40-button)		
Dimensions ³	(WxHxD): 19.05" x 14.12" x 2.56"; 484mm x 359mm x 65mm		
Weight ²	16.3 lb (7.4 kg)		
Chassis	Front bezel: brown color; back bezel: black color		
Stand	Fold-away stand (adjustable between 12° and 40°)		
120-watt AC adapter RoHS-compliant			
Limited Warranty ¹² <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts²³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 2-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1552)• 3-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1553)⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686			

See footnotes for important warranty information
US models announced April 28, 2010

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Partial list of Lenovo® Care Services²²
for Lenovo Essential desktops

For more information see:
http://www.lenovo.com/services_warranty/us/en/index.html

<u>Lenovo Care service upgrade options</u>	
<i>Lenovo Essential C Series desktops with 1-year Onsite warranty</i>	
2-year Lenovo Onsite Repair warranty 9x5	78Y1552
3-year Lenovo Onsite Repair warranty 9x5	78Y1553
<i>Lenovo Essential H Series desktops with 1-year Onsite warranty</i>	
2-year Lenovo Onsite Repair warranty 9x5	78Y1552
3-year Lenovo Onsite Repair warranty 9x5	78Y1551

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

Footnotes:

- ¹ Power management, including Intel® SpeedStep® Technology, reduces processor speed when in battery mode.
- ² **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.
- ³ **Thinness** may vary at certain points on the system.
- ⁴ **Wireless capability:** Requires compatible wireless-enabled options sold separately.
- ⁵ **Post-warranty annual maintenance agreement:** Service begins at the end of the base warranty or the end of any other applied warranty and maintenance option, whichever occurs last. Service delivery is not available the same day the maintenance agreement is purchased. Maintenance agreements must be purchased and the registration successfully completed prior to the service being available.
- ⁶ **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.
- ⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
- ⁹ **Service upgrade options:** Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees.
- ¹⁰ **Battery:** These model numbers achieved the battery life based on MobileMark® 2007 during testing. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.
- ¹¹ **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.
- ¹² **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.
- ¹³ **Onsite Repair:** If a machine is listed as having "On-site", this means that on-site service is available for the replacement of parts for warranty repairs. Certain parts, referred to as Customer Replaceable Unit ("CRU") parts, are easy to install and require little or no tools or technical knowledge. Some examples of CRU parts are mice, keyboards, hard disk drives, speakers, and memory. If your problem can be resolved with a CRU, the Support Center will offer to ship the part to you for you to install.
- ¹⁴ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.
- ¹⁵ **Modem speeds:** Public network download speeds are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ¹⁶ **Response times may vary.** May exclude some holidays. Telephone support may be subject to additional charges.
- ¹⁷ **International Warranty Service** is available for most products in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.
- ¹⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary and may exclude some holidays.
- ¹⁹ **Depot repair service:** In the United States call 1-877-453-6686. The customer may be asked certain diagnostic questions before a courier is sent. Your purchase includes this depot repair service, available in the U.S. during the limited warranty period.
- ²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.
- ²¹ **For combination drives,** maximum possible speeds only are given in the following order: CD write, CD rewrite, CD read, DVD read.
- ²² **Lenovo Care Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part can be express shipped to you for quick replacement. For notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See terms and conditions for complete details and restrictions.

²³ **Customer Replacement Units (CRUs)** are designed to be replaced by customers during the applicable warranty period. Lenovo will send a technician onsite to perform a repair if remote telephone diagnosis does not isolate the problem, if customer replaceable parts are unable to resolve the problem, or at the request of the customer. For a list of customer replaceable parts, contact Lenovo. Support unrelated to a warranty issue may be subject to additional charges.

²⁵ **Wireless WAN Cards:** Wireless data service requires separate agreement with Verizon Wireless. Verizon Wireless, not Lenovo, is solely responsible for service. Monthly and airtime charges may apply. Service may not be available in all areas; purchaser is responsible for verifying with Verizon Wireless that service is available for the intended location before the purchase of the card. For complete details, including service plans, additional required hardware or software, and service coverage, visit www.verizonwireless.com.

²⁸ **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.



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