

*Personal Systems Reference
October 2010 - Version 386*

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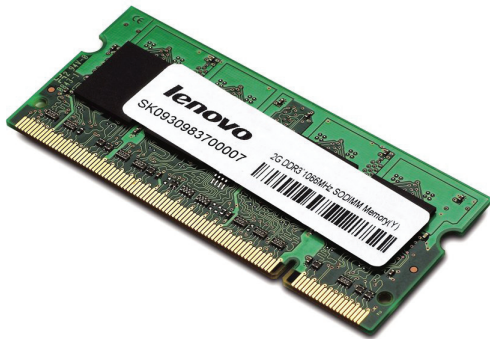


Personal Systems Reference Lenovo® ThinkPad® Notebooks

October 2010 - Version 386



Visit www.lenovo.com/psref for the latest version



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



Lenovo® Power Hub
57Y4600



90W Ultraslim AC/DC Combo Adapter
41R4493

ThinkPad®



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) - Windows 7

Personal Systems Reference (PSREF)

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
4403-69U	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg	None		Blue	Pro 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M 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) <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• Microsoft Office 2010 preloaded; purchase product key to activate• 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)	
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 4.92 lb (2.23kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 5.0 hr; 9-cell: up to 8.1 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 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	
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK 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 July 6, 2010; previous models on May 11, 2010

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(DMD3-7) July 2010

ThinkPad® L412 4404 (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 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
4404-4LU	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	6	Pro 64	Jul 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M 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• Microsoft Office 2010 preloaded; purchase product key to activate• 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)	
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 <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 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, 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	
Security Security chip Fingerprint reader		
Limited warranty ¹²	3-years/1-yr battery - 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 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 model announced July 6, 2010; previous models on May 11, 2010

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(DMD3-8) July 2010

ThinkPad® L412 4403 (Discrete) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	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	Avail date
4403-58U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	None	None	Blue	Pro 64	Jun 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mainstream business performance; 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 system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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	
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics, 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) @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 90-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 5.09 lb (2.31kg); 6-cell: from 5.28 lb (2.40kg); 9-cell: from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 9-cell 4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.4 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 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	
Security Security chip Fingerprint reader	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 June 22, 2010

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(DMD3-9) June 2010

ThinkPad® L412 4404 (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	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4404-3GU	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Finger	Blue	9	Pro 64	Jun 10
4404-3HU	i3-370M	2.40		2GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³		Blue	9	Pro 64	Jun 10
4404-3JU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	9	Pro 64	Jun 10
4404-3KU	i3-350M	2.26		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	9	Pro 64	Jun 10
4404-3LU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg			Blue	9	Pro 64	Jun 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M 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 - 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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														
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 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) @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 5.09 lb (2.31kg); 6-cell: from 5.28 lb (2.40kg); 9-cell: from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 9-cell 4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.4 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)										90-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 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> 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 <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										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 22, 2010

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(DMD3-10) June 2010

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	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
0530-6LU	i3-370M	2.40		2GB	14.0" HD		160G 7200	Intel 6200			None		Pro 64	Jul 10
0530-6MU	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	Intel 6200	WWAN upg		None		Pro 64	Jul 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-370M 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 - <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 • Adobe® Reader® • Microsoft Office 2010 preloaded; purchase product key to activate • 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 Camera	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	
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 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™	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 <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 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 Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 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 Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None <i>Some:</i> 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	

See footnotes for important warranty information

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

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(DMD3-3) July 2010

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	Workhorse (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
0553-7YU	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64		Jul 10
0553-7ZU	i5-520M	2.40	2.93	4GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64		Jul 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-370M 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 - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • <i>Some:</i> 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 Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
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		
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 Camera	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		
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 <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 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 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 Intel AMT Audio support	<i>Some:</i> AT&T® or Verizon®, 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 <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		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

See footnotes for important warranty information

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

ThinkPad® L412 0553 (Discrete) - 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	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Workhorse (W) Gbl (G) Educ	Avail date
0553-6XU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg			Blue	9	Pro 64	W G	Jun 10
0553-6YU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg			Blue	9	Pro 64	W G	Jun 10
0553-6ZU	i5-540M	2.53	3.06	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	9	Pro 64	W G	Jun 10
0553-72U	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg			Blue	9	Pro 64		Jun 10
0553-73U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³	Finger	Blue	9	Pro 64		Jun 10
≠ 0553-74U	i3-350M	2.26		2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg			Blue	6	Pro 32	W G	Jun 10
0553-75U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 5400	Intel 6200	WWAN upg			Blue	9	Pro 64	W G	Jun 10
0553-76U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Finger	Blue	6	Pro 64	W G	Jun 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 - <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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • 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 160GB ⁸ (7200 rpm) or 320GB (5400 or 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 <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 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) @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 <i>4-cell:</i> from 5.09 lb (2.31kg); <i>6-cell:</i> from 5.28 lb (2.40kg); <i>9-cell:</i> from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-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 7.4 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 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 Intel AMT Audio support	<i>Some:</i> 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 Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant	
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	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	
		Supports ThinkVantage® technologies
		90-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

See footnotes for important warranty information

US models announced June 22, 2010

≠ US model withdrawn effective September 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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		
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 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Windows Live™ Toolbar• Microsoft Office 2010 preloaded; purchase product key to activate• 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 ® (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 4.92 lb (2.23kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.45 lb (2.47kg)					
Case color	black					
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic					
Battery - type	Lithium Ion 6-cell					
Battery - life ¹⁰	4-cell: up to 2.8 hr; 6-cell: up to 5.0 hr; 9-cell: up to 8.1 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			Supports ThinkVantage® technologies		
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2			65-watt AC adapter		
WWAN upg	Wireless WAN upgradable			EPEAT™ Gold rating		
Modem	None			ENERGY STAR® 5.0-compliant		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator			RoHS-compliant		
Ethernet	Realtek® RTL8111DL Gigabit Network Connection			International Warranty Service ¹⁷		
Intel AMT	None			24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
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			ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 45K6038		
Fingerprint reader	<i>Some:</i> UPEK 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-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 April 20, 2010

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ThinkPad® L412 0585 (Discrete) - 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	Bat-tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
0585-6XU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	9	Pro 64	W G P	Jun 10
0585-6YU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	9	Pro 64	W G P	Jun 10
0585-6ZU	i5-540M	2.53	3.06	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	9	Pro 64	W G P	Jun 10
➤ 0585-74U	i3-350M	2.26		2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 32	W G P	Jun 10
0585-75U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 5400	Intel 6200	WWAN upg		Blue	9	Pro 64	W G P	Jun 10
0585-76U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	W G P	Jun 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 - <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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • 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 160GB ⁸ (7200 rpm) or 320GB (5400 or 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 <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus		
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 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) @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 <i>4-cell:</i> from 5.09 lb (2.31kg); <i>6-cell:</i> from 5.28 lb (2.40kg); <i>9-cell:</i> from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-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 7.4 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, 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		Supports ThinkVantage® technologies
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip		90-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
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		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 June 22, 2010

➤ US model withdrawn effective September 2010

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(DMD3-12) June 2010

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
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann	03/02/10

Storage and removable storage

SL410/510 500GB Disk SATA 3G/s (5400 rpm)	43N3422	ann	10/22/09
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 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 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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
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
Lenovo Power Hub	57Y4600	ann	09/07/10
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
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

More information at www.lenovo.com/support/cases**Monitors**

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
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 Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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 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	Battery 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
4444-4EU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 64	Jul 10
4444-4FU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	6	Pro 64	Jul 10
4444-4VU	i5-560M	2.66	3.20	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	Sep 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M 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 i5-560M 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 Office 2010 preloaded; purchase product key to activate • 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 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)										Supports ThinkVantage® technologies			
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	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.48 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 4.9 hr; 9-cell: up to 8.0 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 ThinkPlus 3-year LOR 9x5 NBD 45K5970			
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, 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										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 <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, 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 September 28, 2010; previous models on May 11 or July 6, 2010

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(RUB3-5) October 2010

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
4447-3EU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	6	Pro 32	Jul 10
4447-3HU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 64	Jul 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 5.48 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.01 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 2.8 hr; 6-cell: up to 4.9 hr; 9-cell: up to 8.0 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														
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 6, 2010; previous models on May 11, 2010

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(RUB3-6) July 2010

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
2597-6PU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		None	Blue	Pro 64	Jul 10
2597-6QU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		None	Blue	Pro 64	Jul 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-370M 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 - <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 Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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)	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 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® 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 5.48 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 4.9 hr; <i>9-cell:</i> up to 8.0 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 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> 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 Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant	
Security Security chip Fingerprint reader	None None None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

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

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(RUB3-3) July 2010

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	Workhorse (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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • <i>Some:</i> 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 Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
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	
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	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	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 5.48 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.01 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 2.8 hr; 6-cell: up to 4.9 hr; 9-cell: up to 8.0 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 ⁴ , 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® or Verizon®, contract required with service provider	
Modem	None	
Bluetooth™	<i>Some:</i> 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	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

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

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	Workhorse (W) Global (G) GMP (P)	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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • 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), 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 5.48 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 4.9 hr; <i>9-cell:</i> up to 8.0 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 PC3-10600 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
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann	03/02/10

Storage and removable storage

SL410/510 500GB Disk SATA 3G/s (5400 rpm)	43N3422	ann	10/22/09
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 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 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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
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
Lenovo Power Hub	57Y4600	ann	09/07/10
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 Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08

More information at www.lenovo.com/support/cases**Monitors**

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
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 Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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 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	Max Base (GHz)	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
2516-DCU	i5-560M	2.66	3.20	2GB	14.1" WXGA	LED	2.0M	320G	7200	11b/g/n	None	None	None	6	No	Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M 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• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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) 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	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	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
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	ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card	ThinkPlus 2-year LOR 9x5 NBD 45K5969
WWAN upg	None	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Modem	56K V.92 ⁶ modem	ThinkPlus 4-year LOR 9x5 NBD 45K5973
Bluetooth™	None	ThinkPlus 5-year LOR 9x5 NBD 45K5975
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1	ThinkPlus 2-year P&L P/U Depot 45K5971
Intel AMT	Intel Active Management Technology (iAMT)	ThinkPlus 3-year P&L P/U Depot 45K5972
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 45K5974
Security	Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus 5-year P&L P/U Depot 45K5976
Security chip	Trusted Platform Module, TCG 1.2-compliant	Post-warranty annual maintenance agreements at
Fingerprint reader	None	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 September 28, 2010; previous model on January 7, 2010

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ThinkPad® T410 2518 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base 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- Blue- tery Intel vPro Preload	Avail date
2518-C2U	i5-520M	2.40	2.93	2GB	14.1" WXGA	2.0M	250G 5400	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger	Blue 6 vPro Pro 32 Jan 10
2518-F3U	i5-520M	2.40	2.93	2GB	14.1" WXGA	2.0M	250G 5400	11b/g/n	WWAN upg		Blue 6 Pro 32 Jan 10	
2518-F6U	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	80G SSD	Intel 6200	WWAN upg	Finger	Blue 9 vPro Pro 32 Jan 10	
2518-4HU	i5-520M	2.40	2.93	2GB	14.1" WXGA	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue 6 vPro Pro 32 Mar 10	
2518-QBU	i5-540M	2.53	3.06	4GB	14.1" WXGA	2.0M	160G SSD	Intel 6200	WWAN upg	Finger	6 vPro Pro 64 Jul 10	
2518-AHU	i5-560M	2.66	3.20	2GB	14.1" WXGA	2.0M	320G 7200	Intel 6200	WWAN upg		Blue 6 vPro Pro 64 Sep 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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> 80GB⁸ or 160GB 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 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 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 <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 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 upgrades²² 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 model announced September 28, 2010; previous models on January 7, March 2, or July 6, 2010

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ThinkPad® T410 2518 (Optimus) - 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	Intel vPro	Preload	Avail date
2518-AJU	i5-560M	2.66	3.20	2GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Blue	vPro	Pro 64	Sep 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 depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR) 														
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M 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 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 • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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) / 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	Camera on top of screen, 2.0-megapixel, fixed focus													
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, 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> 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	Top: High Elasticity PolyCarbonate (HEPC); Bottom: 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 6.5 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	11a/b/g/n wireless, PCIe Half 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 / 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-yr battery - depot repair service / service upgrades ²² available										lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
 US model announced September 28, 2010

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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
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

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• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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 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	

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

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	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	Intel vPro	Preload	Avail date
2518-C4U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	320G 7200	11b/g/n	Gobi 2000	Verizon ¹⁶	Fing	Blue		Pro 32	Jan 10
2518-F5U	i5-540M	2.53	3.06	4GB	14.1" WXGA+	2.0M	500G 7200	WiMAX	WWAN upg		Fing	Blue	vPro	Pro 32	Jan 10
2518-4KU	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000	Verizon	Fing	Blue	vPro	Pro 64	Mar 10
2518-4LU	i5-540M	2.53	3.06	4GB	14.1" WXGA+	2.0M	320G 7200	WiMAX	WWAN upg		Fing	Blue	vPro	Pro 64	Mar 10
2518-QCU	i5-540M	2.53	3.06	4GB	14.1" WXGA+	2.0M	160G SSD	Intel 6200	WWAN upg			Blue	vPro	Pro 64	Jul 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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) <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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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> 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 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	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	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 <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 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
		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 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 model announced July 6, 2010; previous models on January 7 or March 2, 2010

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(NZ1-6) July 2010

ThinkPad® T410 2519 (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	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

• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

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• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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 250GB® (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
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	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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Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory (MHz)	Wide- screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue- tooth	Bat- tery cells	Intel vPro	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		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

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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	
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 <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)	Supports ThinkVantage® technologies
PCIe Mini Card Intel 6200 ²⁸ WiMAX Intel 6300 ²⁸ WWAN upg Gobi™ 2000	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 and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX <i>Some:</i> 11a/b/g/n wireless, 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	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 Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider 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	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:</i> 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 upgrades²² available	

See footnotes for important warranty information

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

ThinkPad® T410 2522 (Windows 7) - July 2010

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory (MHz)	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
2522-KGU	i5-520M	2.40	2.93	2GBx2 1066	14.1" WXGA	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	Fing	Blue	9 vPro	Pro 64	Jul 10
2522-KHU	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA	2.0M	160G SSD	Intel 6200	WWAN upg	Fing	Blue	9 vPro	Pro 64	Jul 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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	
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access	
SATA disk	<i>Some: 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (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	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: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
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	
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	11a/b/g/n wireless ⁴ , PCIe Half 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 / 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	
		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 models announced July 6, 2010

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ThinkPad® T410 2522 (Optimus) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Graphics controller memory	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Intel vPro	Preload	Avail date
2522-88U	i5-560M	2.66	3.20	2GBx1 1066	14.1" WXGA	512MB	320G 7200	Intel 6200 ²⁸	WWAN upg	None	vPro	Pro 64	Sep 10

- **This model has a depot repair service 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M 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 System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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	
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 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	
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, 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> 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 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.5 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)	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
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	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	ThinkPlus™, ²² 3-year LOR ²⁴ 9x5 NBD 45K6021
Modem Bluetooth™ Ethernet Intel AMT Audio support	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 4-year LOR 9x5 NBD 45K6022
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	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 model announced September 28, 2010

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 (NZ1-18) October 2010

ThinkPad® T410 2519 (Discrete) - 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	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

• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

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 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 • Fingerprint Software • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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) / 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	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 6-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												
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2												
WWAN upg	None												
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	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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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

ThinkPad® T410 2522 (Discrete) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base 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 cells	Intel vPro	Workhorse (W) Global (G) Preload	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+	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
2522-KJU	i5-540M	2.53	3.06	4GB	14.1" WXGA	2.0M 160G SSD	Intel 6200	WWAN upg		Finger	9	vPro	Pro 64	Jul 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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, 128GB, or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 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	<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 <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 5.0 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Slice battery:</i> 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 <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	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	<i>Some:</i> 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 <i>Some:</i> 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 July 6, 2010; previous models on January 7, March 2, or April 6, 2010

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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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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) <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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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:</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, 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 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	
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	
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 models announced May 4, 2010

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 (NZ1-15) 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	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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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 160GB ⁸ (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 <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 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	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 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 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)	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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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> 80GB® 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	Blue-tooth	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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)• 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 • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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	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 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2														
WWAN upg	<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 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 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **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 • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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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(NZ1-14) January 2010

ThinkPad® T410i 2516 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	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	Battery Intel cells vPro	Preload	Avail date
2516-AQU	i3-330M	2.13	2GB	14.1" WXGA	2.0M	250G 5400	Intel 1000			None	None	6	No	Pro 32 Feb 10
2516-72U	i3-370M	2.40	2GB	14.1" WXGA	2.0M	250G 5400	Intel 1000			None	None	6	No	Pro 64 Jul 10
2516-73U	i3-370M	2.40	2GB	14.1" WXGA	2.0M	320G 7200	Intel 1000			None	None	6	No	Pro 64 Jul 10
2516-74U	i3-370M	2.40	2GB	14.1" WXGA	2.0M	320G 7200	Intel 1000	Gobi 2000	selectable	None	None	6	No	Pro 64 Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-330M or i3-370M 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 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• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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) 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 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	
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier	<i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	
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	

		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 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 models announced July 6, 2010; previous model on February 2, 2010

US model withdrawn effective July 31, 2010

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(NZ11-2) July 2010

ThinkPad® T410i 2518 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB	s rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload	Avail date
2518-JWU	i3-370M	2.40	2GB	14.1" WXGA	2.0M	320G	7200	Intel 1000	Gobi 2000	selectable WWAN upg		Blue	9	No	Pro 64	Jul 10
2518-JXU	i3-370M	2.40	2GB	14.1" WXGA	2.0M	250G	5400	Intel 1000				Finger	9	No	Pro 64	Jul 10
2518-MHU	i3-370M	2.40	2GB	14.1" WXGA	2.0M	250G	5400	Intel 1000				Finger	9	No	Pro 64	Jul 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*
- *These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)*

Positioning Processor	Premiere performance; two spindles Intel® Core™ i3 processor i3-370M 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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 250GB ® (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 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	
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 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 1000 WWAN upg Gobi™ 2000 Carrier	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 <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁹ modem <i>Some:</i> 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	
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 July 6, 2010

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(NZ1j-3) July 2010

ThinkPad® T410i 2518 (Discrete) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	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-JYU	i3-370M	2.40	2GB	14.1" WXGA+	LED	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Yes	No	Pro 64	Jul 10

- **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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-370M 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 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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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) / 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	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													
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	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	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 July 6, 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-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann	08/03/10
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

Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
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
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435	ann	06/22/10

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 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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
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

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
Lenovo Power Hub	57Y4600	ann	09/07/10
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
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

More information at www.lenovo.com/support/cases**Monitors**

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10

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 Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
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) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base 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
2901-ATU	i5-560M	2.66 3.20	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	None	Blue	Express	No Pro 64	Sep 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™ i5 processor i5-560M 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™ • Client Security Solution™ • 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)
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	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)	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	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	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	ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968
ExpressCard/34	One slot (ExpressCard/34)	ThinkPlus 2-year LOR 9x5 NBD 45K5969
Multicard Reader	None	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (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	ThinkPlus 2-year P&L P/U Depot 45K5971
WWAN upg	Wireless WAN upgradable	ThinkPlus 3-year P&L P/U Depot 45K5972
Modem	None	ThinkPlus 4-year P&L P/U Depot 45K5974
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	ThinkPlus 5-year P&L P/U Depot 45K5976
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1	Post-warranty annual maintenance agreements at
Intel AMT	Intel Active Management Technology (iAMT)	lenovo.com/thinkplus/warranty
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	

See footnotes for important warranty information
US model announced September 28, 2010

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(SN2-11) October 2010

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
2904-HCU	i5-560M	2.66	3.20	4GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200	WWAN upg		Express	vPro	Pro 64	Sep 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M 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• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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> 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	
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): 13.3" 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	
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	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 September 28, 2010; previous models on March 2 or May 4, 2010

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(SN2-7) October 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 Office 2010 preloaded; purchase product key to activate • 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> 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		
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)		
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		

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

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(SN2-8) May 2010

ThinkPad® T410s 2904 (Optimus) - 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-HDU	i5-560M	2.66	3.20	4GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	3-in-1	vPro	Pro 64	Sep 10

- **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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-560M 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	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 • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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" (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														
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, 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; 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 4.7 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)														
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	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 September 28, 2010

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Type-model	Proc- essor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	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	Workhorse (W) Gbl (G) Avail Preload 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
2912-42U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		2.0M	160G SSD	Intel 6200	upg		Blue	Exp	vPro	Pro 64	Aug 10
<ul style="list-style-type: none">These models have a depot repair service 3-year limited warrantyThese systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																
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 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 or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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: 80GB⁸, 128GB, or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high Some: 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ All: 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, Some: MultiTouch (touchscreen supports two-finger touch) Some: camera on top of screen, 2.0-megapixel, fixed focus															
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	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm MultiTouch models: 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm 6-cell: starting at 3.94 lb (1.79kg); 6-cell (MultiTouch): starting at 4.51lb (2.05kg) Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy															
Weight ²	6-cell: starting at 3.94 lb (1.79kg); 6-cell (MultiTouch): starting at 4.51lb (2.05kg)															
Case material	Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: 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 ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset Some: One slot (ExpressCard/34) Some: 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) 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 11b/g/n Intel 6200 ²⁸ WiMAX	Two PCI Express Mini Card slots Some: 11b/g/n wireless ⁴ , 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: 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX											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				
WWAN upg Gobi™ 2000	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	21U/2DU models: Verizon®, contract required with service provider															
Modem	None															
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator															
Ethernet	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				
Intel AMT	Intel Active Management Technology (iAMT)											ThinkPlus 4-year LOR 9x5 NBD 45K6022				
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 5-year LOR 9x5 NBD 45K6024				
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole											ThinkPlus 4-year P&L P/U Depot 45K6023				
Security chip	Trusted Platform Module, TCG 1.2-compliant											ThinkPlus 5-year P&L P/U Depot 45K6025				
Fingerprint reader	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 August 3, 2010; previous models on January 7, March 2, March 30, or May 4, 2010

US models withdrawn effective August 2010

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(SN2-4) August 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	Workhorse (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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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, 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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: 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high</i> <i>Some: 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™</i> <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													
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	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 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 3.94 lb (1.79kg); 6-cell (MultiTouch): starting at 4.51lb (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 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)													
PCIe Mini Card	Two PCI Express Mini Card slots													
Intel 6200 ²⁸ WiMAX	<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 and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX													
Intel 6300 ²⁸ WWAN upg	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <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™	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	Hardware Password Manager (HPM), Intel AntiTheft (AT), 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 March 30 or May 4, 2010; previous models on March 30, 2010

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ThinkPad® T410s 2912 (Optimus) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
2912-47U	i5-560M	2.66	3.20	2GBx1 1066	14.1" WXGA+	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	vPro	Pro 64	Sep 10

- This model has a depot repair service 3-year limited warranty
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-560M 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• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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			
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 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive			
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			
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, and 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; 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @60Hz			
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 6-cell: starting at 3.94 lb (1.79kg) Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim 6-cell: up to 4.7 hr; 6-cell plus Ultrabay battery: up to 7.9 hr			Supports ThinkVantage® technologies
Battery - type Battery - life ¹⁰				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
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 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
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 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 Hardware Password Manager (HPM), Intel AntiTheft (AT), 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			
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 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 September 28, 2010

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(SN2-13) October 2010

ThinkPad® T410s 2924 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	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	Preload	Workhorse (W) Gbl (G) 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	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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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> 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													
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	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	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): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm <i>6-cell:</i> starting at 3.94 lb (1.79kg); <i>6-cell (MultiTouch):</i> starting at 4.51lb (2.05kg) <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													
Weight ² Case material	<i>6-cell:</i> starting at 3.94 lb (1.79kg); <i>6-cell (MultiTouch):</i> starting at 4.51lb (2.05kg) <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													
Battery - type Battery - life ¹⁰	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)													
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 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ 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, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 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 <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													
											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 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 May 4, 2010; previous models on January 7, 2010

US model withdrawn effective August 2010

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(SN2-5) June 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	Workhorse (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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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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(SN2-10) May 2010

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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **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 system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (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 • Microsoft Office 2010 preloaded; purchase product key to activate • 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> 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, <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	<i>14.1W"</i> (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm <i>6-cell:</i> starting at 3.94 lb (1.79kg); <i>6-cell (MultiTouch):</i> starting at 4.51lb (2.05kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr	
Weight ² Case material		
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)	
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	
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 upgrades²² 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 models announced January 7, 2010

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Type-model	Processor	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
2901-ARU	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10
2901-ASU	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10

- *These small and medium business (SMB) models are part of the US TopSeller™ Program*
- *These system are Microsoft® Office 2010 Product Key Ready (O10PKR)*

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i3 processor i3-370M 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 64 Preloaded applications ¹⁴ (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 • Microsoft Office 2010 preloaded; purchase product key to activate • 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> 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 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	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
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	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)	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968
Multicard Reader	None	ThinkPlus 2-year LOR 9x5 NBD 45K5969
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	ThinkPlus 3-year LOR 9x5 NBD 45K5970
PCIe Mini Card	Two PCI Express Mini Card slots	ThinkPlus 4-year LOR 9x5 NBD 45K5973
11b/g/n	<i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card	ThinkPlus 5-year LOR 9x5 NBD 45K5975
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2	ThinkPlus 2-year P&L P/U Depot 45K5971
WWAN upg	Wireless WAN upgradable	ThinkPlus 3-year P&L P/U Depot 45K5972
Modem	None	ThinkPlus 4-year P&L P/U Depot 45K5974
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	ThinkPlus 5-year P&L P/U Depot 45K5976
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1	Post-warranty annual maintenance agreements at
Intel AMT	None	lenovo.com/thinkplus/warranty
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	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced August 3, 2010

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ThinkPad® T410si 2904 (TopSeller) - Windows 7 (August 2010)

Personal Systems Reference (PSREF)

Type-model	Processor	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	Card slot	Intel vPro	Preload	Avail date
2904-H6U	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10
2904-H7U	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	160G SSD	Intel 1000	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i3 processor i3-370M 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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 <i>Some:</i> 160GB 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 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			
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			
Battery - type Battery - life ¹⁰				
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 11b/g/n Intel 1000 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> 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable			
Modem Bluetooth™ Ethernet Intel AMT Audio support	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			
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 models announced August 3, 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-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
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

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 (7200 rpm) ⁵¹	43N3423	ann 01/07/10
⁵¹ Can be used with <i>Serial ATA Hard Drive Bay Adapter III</i> 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 <i>Serial ATA Hard Drive Bay Adapter III</i> 43N3412 in Ultrabay via the removable adaptive cover provided with the drive		

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 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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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
Lenovo Power Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

<i>Charging tips for 90W Ultralim AC/DC Combo Adapter</i> 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
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

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

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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

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 Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

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 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	Battery 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
4313-CTU	i5-560M	2.66	3.20	2GB	15.6" HD	2.0M	320G 7200	DVD±RW	11b/g/n	None	None	None	6	No	Pro 64 Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M 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• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Microsoft Office 2010 preloaded; purchase product key to activate• 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 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 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	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)		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		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 None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information

US model announced September 28, 2010; previous model on January 7, 2010

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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 ⁸ 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
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
4314-C5U	i5-540M	2.53	3.06	2GB	15.6" HD	2.0M	160G SSD	Intel 6200	WWAN upg	Finger	Blue	9	vPro	Pro 64	Jul 10
4314-DDU	i5-560M	2.66	3.20	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Blue	6	vPro	Pro 64	Sep 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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 <i>Some:</i> 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 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	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	15.6W" (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 or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery	
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	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	
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	
WWAN upg	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-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 model announced September 28, 2010; previous models on January 7, May 4, or July 6, 2010

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(KN1-3) October 2010

ThinkPad® T510 4314 (Optimus) - 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	Intel vPro	Preload	Avail date
4314-DEU	i5-560M	2.66	3.20	2GB	15.6" HD+	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Blue	9	vPro	Pro 64	Sep 10
<ul style="list-style-type: none">• 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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M 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 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• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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 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+ (1600x900) 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														
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, 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> 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 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.1 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 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) 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)										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				
Security Security chip Fingerprintr 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	3-years/1-yr - battery depot repair service / service upgrades²² available														

See footnotes for important warranty information
 US model announced September 28, 2010

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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
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Premiere performance; 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 - 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• Microsoft Office 2010 preloaded; purchase product key to activate• 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	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	
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	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	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
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 4.7 hr; 9-cell: up to 7.8 hr; 9-cell plus Slice battery: up to 15.6 hr	
Chipset	Mobile Intel QM57 Express Chipset	
ExpressCard/34	One slot (ExpressCard/34)	ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
Smart Card read	None	ThinkPlus 2-year LOR 9x5 NBD 45K5969
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Ports	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)	ThinkPlus 4-year LOR 9x5 NBD 45K5973
PCIe Mini Card 11b/g/n	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card	ThinkPlus 5-year LOR 9x5 NBD 45K5975
WWAN upg	None	ThinkPlus 2-year P&L P/U Depot 45K5971
Modem	56K V.92 ⁶ modem	ThinkPlus 3-year P&L P/U Depot 45K5972
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	ThinkPlus 4-year P&L P/U Depot 45K5974
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1	ThinkPlus 5-year P&L P/U Depot 45K5976
Intel AMT	Intel Active Management Technology (iAMT)	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
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	

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 (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	Battery 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
4314-C4U	i5-540M	2.53	3.06	2GB	15.6" HD	2.0M	160G SSD	Intel 6200	WWAN upg	Finger	Blue	9 vPro	Pro 64	Jul 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 depot repair service 3-year limited warranty• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)														
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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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> 128GB⁸ or 160GB 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 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 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 4.7 hr; 9-cell: up to 7.8 hr; 9-cell plus Slice battery: 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 upgrades ²² available													

See footnotes for important warranty information

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

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(KN1-7) May 2010

ThinkPad® T510 4349 (Windows 7) - July 2010

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	Blue-tooth	Intel vPro	Workhorse (W) Gbl (G) Avail		
														Preload	GMP (P)	date
4349-G3U	i5-540M	2.53	3.06	2GBx2 1066	15.6" HD+	2.0M	160G SSD		Intel 6200 ²⁸	WWAN upg	Finger	Blue	vPro	Pro 64	No	Jul 10

• ***This system is Microsoft® Office 2010 Product Key Ready (O10PKR)***

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 system²⁰ - 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Windows Live™ Toolbar• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Microsoft Research AutoCollage Touch• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW) 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
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 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 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	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	<i>15.6W"</i> (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	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	56K V.92 ⁵ 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 July 6, 2010

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(KN1-13) July 2010

ThinkPad® T510 4349 (Optimus) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base 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	Blue-tooth	Intel vPro	Preload	Avail date
4349-GDU	i5-560M	2.66 3.20	2GBx1 1066	15.6" HD+	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Blue	vPro	Pro 64	Sep 10

- This model has a depot repair service 3-year limited warranty
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M 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 std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets								Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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+ (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												
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, 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> 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	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												
Battery - life ¹⁰	6-cell: up to 6.1 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	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	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	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	None												
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available												

See footnotes for important warranty information
US model announced September 28, 2010

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(KN1-15) October 2010

ThinkPad® T510 4349 (Discrete) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- tery Intel vPro	Workhorse (W) 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	2.0M 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	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	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	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	May 10
4349-G2U	i5-540M	2.53	3.06	2GBx2	1066	15.6" HD	2.0M 160G SSD	Intel 6200	WWAN upg	Finger Blue 6	vPro Pro 64	Jul 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 - 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	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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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	Dual 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 or 160GB 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,</i> 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight,</i> 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
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</i> Wireless WAN upgradable 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> Intel Active Management Technology (iAMT)	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	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

ES US model announced July 6, 2010; previous models on January 7, March 2, April 6, or May 4, 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	Workhorse (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
4384-H3U	i5-540M	2.53	3.06	4GB	15.6" HD	2.0M	160G SSD	Intel 6200	WWAN upg	Finger	Blue	vPro	Pro 64		Jul 10

Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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 ⁸ or 160GB 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 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 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 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	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 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 July 6, 2010; previous models on January 7, April 6, or May 4, 2010

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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	Workhorse (W) Gbl (G) P (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
4384-H2U	i5-540M	2.53	3.06	4GB	15.6" HD+	2.0M	160G SSD	Intel 6200	WWAN upg	Finger	Blue	6 vPro	Pro 64		Jul 10

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 - 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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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: 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm) or 320GB (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,</i> 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight,</i> 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: 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	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i>														
Weight ²	<i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i>														
Case material	<i>Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic</i>														
Battery - type	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery														
Battery - life ¹⁰	<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	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	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 WWAN upg	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														
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	<i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>										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 July 6, 2010; previous models on January 7 or May 4, 2010

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(KN1-10) July 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)
- 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 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 • Microsoft Office 2010 preloaded; purchase product key to activate • 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)		Supports ThinkVantage® technologies
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		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	<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		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
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		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® 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
<ul style="list-style-type: none">• These models have a depot repair service 3-year limited warranty• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)• 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 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) • E6U 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 • Microsoft Office 2010 preloaded; purchase product key to activate • 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 250GB⁸ (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 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 or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 4.7 hr; 9-cell: up to 7.8 hr; 9-cell plus Slice battery: 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 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 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														
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® T510i 4313 (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	Bat-tery cells	Intel vPro	Preload	Avail date
4313-C2U	i3-370M	2.40	2GB	15.6" HD	2.0M	250G 5400	DVD±RW	Intel 1000	None	Finger	Blue	6	No	Pro 64	Jul 10
4313-C3U	i3-370M	2.40	2GB	15.6" HD	2.0M	320G 7200	DVD±RW	Intel 1000	None	Finger	Blue	6	No	Pro 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-370M 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 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• Fingerprint Software• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• 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 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 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)	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	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, 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 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 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	
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	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
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 July 6, 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) - 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 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
4319-64U	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD+		320G 7200	None	Intel 6300	WWAN upg			vPro	Pro 64	Sep 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: 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 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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	<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	Mobile Intel QM57 Express Chipset										Supports ThinkVantage® technologies				
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 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														
Intel 6300 ²⁸															
WWAN upg															
Gobi™ 2000															
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 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 September 28, 2010; previous models on January 7, February 2, or March 2, 2010

US model withdrawn effective February 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Disk SATA GB ³ rpm	RAID	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Color calib	Bat-tery cells	Intel vPro	Preload	Avail date
4319-5RU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	320G 7200	None	Intel 6300 ²⁸	WWAN upg	None	9		Pro 64	Jul 10
4319-5SU	i7-620M	2.66	3.33	2GBx2 1066	15.6" FHD	320G 7200	None	Intel 6300	WWAN upg	None	9		Pro 64	Jul 10
4319-5XU	i5-560M	2.66	3.20	4GBx1 1333	15.6" HD+	320G 7200	None	Intel 6200 ²⁸	WWAN upg	None	6	vPro	Pro 64	Sep 10
4319-65U	i5-560M	2.66	3.20	2GBx1 1066	15.6" HD+	320G 7200	None	Intel 6300	WWAN upg	None	9	vPro	Pro 64	Sep 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M 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/i5-560M: 3MB cache; i7-620M: 4MB cache</i>										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed)			
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										• Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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	<i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut</i> <i>Some: 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut</i>													
Color calibration	None													
Camera	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: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>													
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 (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													
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	Display cover: Glass-fiber reinforced plastic; Base: 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													
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
Intel 6300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, 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	<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										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			

See footnotes for important warranty information

US models announced September 28, 2010; previous models on July 13, 2010

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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	Workhorse (W) Pre-GMP (P) Avail
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	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
4389-N9U	i7-820QM	1.73	3.06	4GBx1 1333	15.6" FHD	2.0M	320G 7200	DVD±RW	Intel 6300	Yes X-Rite	6 vPro	Pro 64 G Aug 10

- **Power-packed engineering with Open GL graphics and ISV certifications**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 - Some: Genuine Windows® 7 Professional 32 - Some: 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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable</i> 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: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut</i> <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut</i> <i>Some: 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut</i> <i>Some: 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)</i>											
Color calibration Camera	<i>Some: huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest</i> <i>Some: camera on top of screen, 2.0-megapixel, fixed focus</i>											
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 (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:</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												
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: 11a/b/g/n wireless⁴, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2</i> <i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3</i> Wireless WAN upgradable											
Intel 6200 ²⁸												
Intel 6300 ²⁸												
WWAN upg												
Modem	56K V.92 ⁶ modem											
Bluetooth™	<i>Some: Bluetooth 2.1 wireless, LED indicator</i>											
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: 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 model announced August 3, 2010; previous models on January 7, 2010

ThinkPad® W510 4389 (Windows 7) - July 2010

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ^s	rpm	RAID	PCIe Mini Card 802.11	Smart Card Reader	Finger print reader	Blue-tooth	Intel vPro	Workhorse (W) GMP (P) Avail date		
4389-P2U	i7-620M	2.66	3.33	4GBx2	1333	15.6" FHD	2.0M	500G	7200	No	Intel 6200 ²⁸	Finger	Blue	No	Pro 64	G	Jul 10
4389-P3U	i7-620M	2.66	3.33	2GBx2	1066	15.6" HD+		160G	7200	No	Intel 6200	Smart	Blue	No	Pro 64	G	Jul 10
4389-P9U	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD		250G	5400	No	Intel 6200			No	Pro 32	G	Jul 10
4389-PAU	i7-620M	2.66	3.33	2GBx2	1066	15.6" HD+		320G	7200	No	Intel 6200	Finger	Blue	No	Pro 32	G	Jul 10

- **Power-packed engineering with Open GL graphics and ISV certifications**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mobile workstation; two spindles 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</i> : 3MB cache; <i>i7-620M</i> : 4MB cache	Preloaded operating system²⁰ - <i>Some</i> : Genuine Windows® 7 Professional 32 - <i>Some</i> : Genuine Windows 7 Professional 64
Memory	2GB, 4GB, or 8GB 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
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), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™	• Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
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 , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut	
Color calibration Camera	None <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 Weight ² Case material Battery - type Battery - life ¹⁰	<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</i> : 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <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 <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 ExpressCard/34 Smart Card Read Multicard Reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) <i>Some</i> : Smart Card reader 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
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 , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁵ modem <i>Some</i> : 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	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
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 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
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 13, 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	RAID	PCIe Mini Card 802.11	Blue/ Fing	Color calib	Bat- tery cells	Intel vPro	Preload	Workhorse (W) GMP (P) Gbl (G)	Avail date
4391-22U	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD		250G 5400	None	Intel 6200 ²⁸			6	vPro	Pro 32	G P	Jan 10
4391-23U	i7-820QM	1.73	3.06	2GBx2 1066	15.6" HD+		320G 7200	None	Intel 6200	Yes		9	vPro	Pro 32	G P	Jan 10
4391-N9U	i7-820QM	1.73	3.06	4GBx1 1333	15.6" FHD	2.0M	320G 7200	None	Intel 6300 ²⁸	Yes	X-Rite	6	vPro	Pro 64	G P	Aug 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 250GB⁸ (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 <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			
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:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm			
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		Supports ThinkVantage® technologies	
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2		135-watt AC adapter	
Intel 6300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3		ThinkPad Roll Cage (one-piece magnesium frame)	
WWAN upg	Wireless WAN upgradable		EPEAT™ Gold rating	
Modem	56K V.92 ⁶ modem		ENERGY STAR® 5.0-compliant	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator		RoHS-compliant	
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1		International Warranty Service ¹⁷	
Intel AMT	Intel Active Management Technology (iAMT)		24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
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		ThinkPlus™. 22 4-year LOR 9x5 NBD 12X5630	
Fingerprint reader	<i>Some:</i> 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-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 August 3, 2010; previous models on January 7, 2010

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ThinkPad® W510 4391 (Onsite) - Windows 7 (July 2010)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ^a rpm	RAID	PCIe Mini Card 802.11	Smart Card Reader	Finger print reader	Blue-tooth	Intel vPro	Workhorse (W) GMP (P) Avail date
4391-P2U	i7-620M	2.66	3.33	4GBx2 1333	15.6" FHD	2.0M	500G 7200	No	Intel 6200 ²⁸			No	Pro 64 G P Jul 10
4391-P3U	i7-620M	2.66	3.33	2GBx2 1066	15.6" HD+		160G 7200	No	Intel 6200	Smart	Blue	No	Pro 64 G P Jul 10
4391-P9U	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD		250G 5400	No	Intel 6200			No	Pro 32 G P Jul 10
4391-PAU	i7-620M	2.66	3.33	2GBx2 1066	15.6" HD+		320G 7200	No	Intel 6200		Blue	No	Pro 32 G P Jul 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mobile workstation; two spindles 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 system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB, 4GB, or 8GB 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 160GB⁸ (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (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 , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut										
Color calibration	None										
Camera	<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	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 (WxDxH) ³	HD & HD+: 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm FHD: 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm										
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										
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	<i>Some:</i> Smart Card reader										
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)										Supports ThinkVantage® technologies
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	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										ThinkPlus™. 22 4-year LOR 9x5 NBD 12X5630
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 models announced July 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 (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)	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
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 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
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
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435	ann 06/22/10

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 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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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

More information at www.lenovo.com/alldaycomputing

T510:

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
Lenovo Power Hub	57Y4600	ann 09/07/10
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 15.6" 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

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

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

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 Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

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 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	Power (watt)	Preload	Avail date
2500-3AU	i7-720QM	2GBx1 1066	17" WXGA+	FX2800M	1x320G 7200	No	DVD±RW	Intel 6300 ²⁸	Exp 54		230W	vPro	Pro 64 Mar 10
2500-3BU	i7-820QM	2GBx2 1066	17" WUXGA	FX2800M	1x320G 7200	No	DVD±RW	Intel 6300	Smart	Yes	230W	vPro	Pro 64 Mar 10
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)													
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) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• Fingerprint Software• ThinkVantage Toolbox• Microsoft Office 2010 preloaded; purchase product key to activate• 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			
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, 320GB⁸ (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™									Supports ThinkVantage® technologies			
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: <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			
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									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			
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									ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 41C9176			
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									ThinkPlus 4-year LOR 9x5 NBD 41C9177			
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									ThinkPlus 5-year LOR 9x5 NBD 41C9179			
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.0 hr									ThinkPlus 4-year P&L P/U Depot 41C9178			
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)									ThinkPlus 5-year P&L P/U Depot 41C9180			
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									Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
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-year - depot repair service / service upgrades ²² available												

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

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	Type-model	Processor	Memory (MHz)	Widescreen display	Camera	Discrete graphics	Disk(s) SATA GB ^s rpm	RAID	Card slot	Color calib/ Digitizer	Power Adapter (watt)	Workhorse (W)		
												Intel vPro	Global (G) Preload	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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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; i7-720QM: 1.60GHz, 6MB cache; i7-820QM/i7-920XM: 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 Office 2010 preloaded; purchase product key to activate • 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 Some: One disk, 320GB ⁸ (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS) Some: Two same disks, 320GB (5400 or 7200 rpm) or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS Some: 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 All: removable, upgradable, supports three disks max, Shock Mounted Hard Drive							ISV software certifications					
Widescreen display	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 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							Supports ThinkVantage® technologies					
Color calibration Camera	Some: huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Some: 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 adpdr					
Discrete graphics	Some: NVIDIA® Quadro® FX2800M, PCI Express® x16, 1GB memory Some: NVIDIA Quadro FX3800M, PCI Express x16, 1GB memory supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort or dual-link DVI-D)@60Hz; 2048x1536 (VGA)@85Hz							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					
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							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					
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰ Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Read Multicard Reader Ports	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.60-1.63"; 410mm x 310mm x 40.6-41.4mm 9-cell: starting at 8.97 lb (4.07kg) Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 9-cell 9-cell: up to 2.0 hr Mobile Intel QM57 Express Chipset One ExpressCard/34 Some: [54] One ExpressCard/34 or ExpressCard/54 Some: [CF] One Type I slot Some: 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 Security Security chip Fingerprint reader	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 Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 vPro model: 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 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

≈ US model withdrawn effective August 2010

ThinkPad® W701 2542 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

%	Workstation										Workhorse (W)				
	Type-model	Processor	Memory (MHz)	Widescreen display	Camera	Discrete graphics	Disk(s) SATA GB ³	rpm	RAID	Color calib/ Digitizer	Power Adapter (watt)	Intel vPro	Preload	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	FX2800M	500G	7200 x 2	None	None	230W	vPro	Pro 64	W G P	Mar 10
	2542-5BU	i7-820QM	2GBx2	1066	17" WUXGA	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*
- *These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)*

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
Memory	3GB 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) <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 Office 2010 preloaded; purchase product key to activate • 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 ⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS) <i>Some:</i> Two same disks, 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 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	
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	
Color calibration	None	ISV software certifications
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	Supports ThinkVantage® technologies
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	ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	Features:
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	<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
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):</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	[/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	
		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

See footnotes for important warranty information

US models announced February 23, 2010

✂ US model withdrawn effective August 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	Power calib/ 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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• Microsoft Office 2010 preloaded; purchase product key to activate• 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											
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				
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-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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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® • Microsoft Office 2010 preloaded; purchase product key to activate • 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										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										Supports ThinkVantage® technologies	
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										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® 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 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 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)											
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											
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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 (NIC3D-2) April 2010

ThinkPad® W701ds 2542 (Onsite) - 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	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 • This system is Microsoft® Office 2010 Product Key Ready (O10PKR) 														
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; 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 • Microsoft Office 2010 preloaded; purchase product key to activate • 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			
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										Supports ThinkVantage® technologies			
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										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 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 (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)	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
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
⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.	

Ultrabay Enhanced 12.7mm

Blu-ray Reader / DVD Burner Ultrabay Enh	43N3295 ann 01/07/10
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Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737 ann 10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152 ann 01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410 ann 01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403 ann 08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411 ann 01/20/09
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
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435 ann 06/22/10

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 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
Lenovo Security Cable Lock	57Y4303 ann 08/24/10
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 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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More information at www.lenovo.com/support/cases

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1 ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6 ann 06/10/10
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 Security Cable Lock	57Y4303 ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258 ann 09/22/09

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	Camera	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
3508-A9U	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black	Blue	Home P 32	Jul 10
3508-AAU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	selectable	black		Pro 32	Jul 10
3508-AHU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11a/b/g/n	WWAN upg		black	Blue	Home P 32	Jul 10
3508-AKU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black		Home P 32	Sep 10
3508-ALU	MV-40	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	Gobi 2000	selectable	black	Blue	Home P 32	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 - <i>Some:</i> Genuine Windows® 7 Home Premium 32 - <i>Some:</i> 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 Office 2010 preloaded; purchase product key to activate • 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	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 5 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)	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 11a/b/g/n	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 wireless, ThinkPad 11a/b/g/n, PCIe Half Mini Card, Broadcom® chipset, 2x2	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968
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	ThinkPlus 2-year LOR 9x5 NBD 45K5969
Carrier	<i>Some:</i> AT&T®, contract required with service provider <i>Some:</i> User selectable at first boot, AT&T, Verizon®, or Sprint®, contract required with service provider	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Modem	None	ThinkPlus 4-year LOR 9x5 NBD 45K5973
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless	ThinkPlus 2-year P&L P/U Depot 45K5971
Ethernet	Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1	ThinkPlus 3-year P&L P/U Depot 45K5972
Intel AMT	None	ThinkPlus 4-year P&L P/U Depot 45K5974
Audio support	High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
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 September 21, 2010;
previous models on January 5, March 30, April 6, July 6, or July 27, 2010

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Type-model	Proc- essor	GHz	Memory	Wide- screen display	Camera	Integrated graphics	Disk SATA GB ⁹ 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	G 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	G 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	G 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	G 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
2876-AHU	L335	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11a/b/g/n	WWAN upg	None	black	6 high	Blue Pro 32	Jul 10
2876-AJU	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11a/b/g/n	WWAN upg	None	black	6 high	Blue Pro 32	Jul 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 system ²⁰ - 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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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													
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	Full-size, 6-row, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	Two-button touch pad, supports multi-touch function													
ThinkLight™	None													
Dimensions ³	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm													
Weight ²	<i>6-cell:</i> from 3.3 lb (1.5kg)													
Case	<i>Color:</i> black or red; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type	Lithium Ion 6-cell or 6-cell high capacity													
Battery - life ¹⁰	<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	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital)													
ExpressCard/54	None													
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), 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, Realtek® chipset, 1x2 <i>Some:</i> 11a/b/g/n wireless, ThinkPad 11a/b/g/n, PCIe Half Mini Card, Broadcom® chipset, 2x2													
11b/g/n														
11a/b/g/n														
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													
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	None													
Modem	None													
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless													
Ethernet	Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1													
Intel AMT	None													
Audio support	High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / 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 July 27, 2010; previous models on January 5, March 2, March 30, or May 4, 2010

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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	Bat- tery Carrier	cells	Preload	Workhorse (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">• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)• 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 Office 2010 preloaded; purchase product key to activate				
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 250GB 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 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; <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 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											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				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available															
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM Other accessories on O-X100-E sheet	40Y7734 40Y7735		ThinkPad Battery 17 (3-cell) ThinkPad Battery 17+ (6-cell) Other accessories at lenovo.com/accessories		57Y4558 57Y4559											

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

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.			

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
⁵⁶ USB Port Replicator with Digital Video 45K1610 is not supported by ThinkPad X100e due to the system's CPU capabilities.			

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 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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
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 ThinkPad 90W AC Adapter 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
Lenovo Power Hub	57Y4600	ann	09/07/10
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

More information at www.lenovo.com/support/cases**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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10

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 Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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 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 (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
3249-EPU	i5-560M	2.66	3.20	2GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	WWAN upg		vPro	Pro 64	Sep 10
3249-ERU	i5-560M	2.66	3.20	2GB	12.1" WXGA	160G 7200			Intel 6200	WWAN upg		vPro	Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M 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) • Microsoft Office 2010 preloaded; purchase product key to activate			
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, 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													
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										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 1.5G/s 43N3292 – 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 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 UltraBase; 4/6-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm without UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm 4-cell: from 2.89 lb (1.31kg); 6-cell: from 3.18 lb (1.44kg); 9-cell: from 3.52 lb (1.60kg) Color: black; Material: magnesium alloy													
Weight ² Case	Lithium Ion 6-cell 4-cell: up to 3.4 hr; 6-cell: up to 6.7 hr; 9-cell: up to 11.3 hr													
Battery - type Battery - life ¹⁰														
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 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 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										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 September 28, 2010; previous models on February 23, March 2, or April 20, 2010

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(MOC3-1) October 2010

ThinkPad® X201 (3626) - Windows 7

Personal Systems Reference (PSREF)

	Type-model	Proc- essor	Base (GHz)	Max turbo (GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ^o	Optical in rpm	ThinkPad X200 UltraBase	PCle Mini Card 802.11	PCle Mini Card WWAN	Finger print reader	Blue- tooth	Bat- tery cells	Intel vPro	Workhorse (W) 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 W 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 W 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	
💻	3626-PVU	i5-560M	2.66	3.20	2GB	12.1" WXGA		320G	7200		Intel 6200	upg	Fing	Blue	6	vPro	Pro 32 Sep 10	

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>An ultraportable for the executive on the move; one spindle</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M 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• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Microsoft Office 2010 preloaded; purchase product key to activate
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	
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, 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	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 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 Case Battery - type Battery - life ¹⁰	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)	
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 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 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 <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	

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 1.5G/s 43N3292– Serial ATA Hard Drive Bay Adapter III 43N3412Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB FDE 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

See footnotes for important warranty information

 US model announced September 28, 2010; previous models on February 23, April 6, or April 20, 2010

✂ US model withdrawn effective June 2010

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(MOC3-3) October 2010

ThinkPad® X201 (3680) - Onsite (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max		Memory	Wide- screen display	Camera	Disk SATA GB ⁵	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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Microsoft Office 2010 preloaded; purchase product key to activate
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	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (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 X200 UltraBase	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 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
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	
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	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
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	without UltraBase; 4/6-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm without UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm 4-cell: from 2.89 lb (1.31kg); 6-cell: from 3.18 lb (1.44kg); 9-cell: from 3.52 lb (1.60kg)	
Weight ²	Color: black; Material: magnesium alloy	
Case	Lithium Ion 4-cell, 6-cell, or 9-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	Some: 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 Some: 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Some: Wireless WAN upgradable	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Some: 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	Some: 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 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	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	
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">• <i>This model has a depot repair service 3-year limited warranty</i>• <i>This system is Microsoft® Office 2010 Product Key Ready (O10PKR)</i>• <i>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.</i>															
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) • Microsoft Office 2010 preloaded; purchase product key to activate				
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 Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio 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 - 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, 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 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; 4/6-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 Case Battery - type Battery - life ¹⁰	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	<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	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem														
Modem Bluetooth™ Ethernet Intel AMT Audio support	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 Power-on password, hard disk password, supervisor password, security keyhole														
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														
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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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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)• 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 • Microsoft Office 2010 preloaded; purchase product key to activate					
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 Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio 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 1.5G/s 43N3292 – 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, 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 Case Battery - type Battery - life ¹⁰	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	<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 ⁴ , PCIe 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 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										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					
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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(MOC3-6) February 2010

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
3249-MDU	i3-370M	2.40	2GB	12.1" WXGA	None	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3 processor i3-330M or i3-370M 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 Professional 32 - Some: 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™		
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) 160GB⁸ (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>										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 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 1.5G/s 43N3292 – 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 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; 4/6-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													
Case													
Battery - type	Lithium Ion 6-cell												
Battery - life ¹⁰	<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	<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 July 6, 2010; previous models on February 23 or April 20, 2010

US models withdrawn effective July 31, 2010

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(MOC3i-1) July 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

Ultrabay Slim 9.5mm

<i>Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase</i>		
Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
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

Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
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
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435	ann 06/22/10

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

⁵³ USB-only attach.

Wireless WAN (Mini PCI Express)

Only X201 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 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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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
Lenovo Power Hub	57Y4600	ann 09/07/10
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

<i>Up to 12" widescreen models:</i>		
ThinkPad 12W Case Sleeve	51J0476	ann 08/18/09

<i>Up to 13.3" widescreen models:</i>		
ThinkPad Ultraportable Case	41U5062	ann 05/13/08

<i>Up to 15.4" widescreen models:</i>		
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
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

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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 Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

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 (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
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)														
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 <ul style="list-style-type: none">- 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) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• Fingerprint Software• ThinkVantage Toolbox• Lenovo SimpleTap (Multi-Touch models)• Adobe® Reader®• Microsoft Office 2010 preloaded; purchase product key to activate• 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, 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™ <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 1.5G/s 43N3292– 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	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	<i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)													
Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy													
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 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)													
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe 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													
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 & digitizer pen - depot repair service / service upgrades²² 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) August 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch		
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (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 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	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 1.5G/s 43N3292 – 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												
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 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 & digitizer pen - depot repair service / service upgrades²² available												

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

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(CML3-8) August 2010

ThinkPad® X201 Tablet (2985) - TopSeller (Windows 7) - June 2010

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera (Mega- pixel)	Disk SATA GB ⁸	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCle Mini Card 802.11	PCle Mini Card WWAN	Bat- tery Intel cells vPro	Intel Preload	Avail date
2985-F7U	i5-520UM	1.06	1.86	4GB	12.1" WXGA <i>Multi</i>	2.0M	320G	7200	DVD±RW	UltraB	Intel 6200 ²⁸	WWAN upg	8	vPro Pro 32	Jun 10
2985-FAU	i5-520UM	1.06	1.86	2GB	12.1" WXGA <i>Entry</i>		250G	5400			Intel 6200	WWAN upg	4	vPro Pro 64	Jun 10
2985-FBU	i5-520UM	1.06	1.86	2GB	12.1" WXGA <i>Outdoor</i>	2.0M	320G	7200			Intel 6200	WWAN upg	8	vPro Pro 64	Jun 10
2985-FCU	i5-520UM	1.06	1.86	2GB	12.1" WXGA <i>Multi</i>	2.0M	250G	5400			Intel 6200	WWAN upg	8	vPro Pro 64	Jun 10
2985-FSU	i5-560M	2.66	3.20	2GB	12.1" WXGA <i>Entry</i>		160G	7200			Intel 6200	WWAN upg	4	vPro Pro 64	Sep 10
2985-FYU	i5-560M	2.66	3.20	2GB	12.1" WXGA <i>Outdoor</i>	2.0M	160G	7200			Intel 6200	WWAN upg	8	vPro Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-560M 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 • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch		
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, 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) <i>Color:</i> black; <i>Material:</i> magnesium alloy Lithium Ion 4-cell or 8-cell <i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Weight ²													
Case Battery - type Battery - life ¹⁰													
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)												
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, PCIe 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 / 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 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-yr battery & digitizer pen - depot repair service / service upgrades²² available												

See footnotes for important warranty information

US models announced September 28, 2010; previous models on May 25, 2010

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(CML3-9) October 2010

ThinkPad® X201 Tablet (3093) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz) (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 Mini Card	PCIe Mini Card 802.11	PCIe Mini Card Blue/ Intel WWAN	Workhorse (W) Pre- Gbl (G) Avail load GMP (P) 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	
<ul style="list-style-type: none">• These models have a depot repair service 3-year limited warranty• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)											
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 - 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 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 • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW)	
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (5400 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	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)										
Camera	Some: 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; Maximum external resolution: 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 1.5G/s 43N3292 – 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	
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	Lithium Ion 8-cell 4-cell: up to 3.5 hr; 8-cell: up to 7.9 hr										
Case											
Battery - type											
Battery - life ¹⁰											
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	Wireless WAN upgradable										
Modem	56K V.92 ⁶ modem										
Bluetooth™	Some: 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 Power-on password, hard disk password, supervisor password, security keyhole										
Security	Trusted Platform Module, TCG 1.2-compliant										
Security chip	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										
Fingerprint reader											
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - 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

US models withdrawn effective March 2010

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(CML3-2) August 2010

ThinkPad® X201 Tablet (3093) - Windows 7 (February 2010)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Widescreen Memory display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card WWAN	Carrier	Bat-Blue/ tery Intel vPro	Workhorse (W) Gbl (G) Avail date
3093-21U	i7-620LM	2.00	2.80 2GBx1	Entry	250G 5400			WWAN upg		4 vPro Pro 32	G Mar 10
3093-22U	i7-640LM	2.13	2.93 2GBx2	Outdoor	320G 7200			WWAN upg	Yes	8 vPro Pro 32	G Mar 10
3093-23U	i7-640LM	2.13	2.93 2GBx2	Multi	320G 7200			WWAN upg	Yes	8 vPro Pro 32	G Mar 10
3093-24U	i7-640LM	2.13	2.93 2GBx2	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 2GBx2	Outdoor	320G 7200			Gobi 2000	Verizon	Yes	8 vPro Pro 32 W Mar 10
3093-26U	i7-640LM	2.13	2.93 2GB+1	Multi	128G SSD	DVD±RW	UltraB	WWAN upg	Yes	8 vPro Pro 32 W Mar 10	
3093-27U	i7-640LM	2.13	2.93 2GBx1	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 2GBx1	Entry	250G 5400			WWAN upg	Yes	8 vPro Pro 32 W G Mar 10	
3093-42U	i7-620LM	2.00	2.80 2GBx1	Entry	160G 7200			WWAN upg	Yes	8 vPro Pro 64 W G Apr 10	
3093-3ZU	i7-620LM	2.00	2.80 2GBx1	Multi	160G 7200			WWAN upg	Yes	8 vPro Pro 64 W G Apr 10	
• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)											
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									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® • Microsoft Office 2010 preloaded; purchase product key to activate • 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, 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 1.5G/s 43N3292 – 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											
Battery - type	Lithium Ion 4-cell or 8-cell										
Battery - life ¹⁰	4-cell: up to 3.5 hr; 8-cell: 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 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 11a/b/g/n wireless, PCIe 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/HSMA, GPS, contract required with service provider										
Intel 6200 ²⁸ WWAN upg Gobi™ 2000											
Carrier	Some: Verizon®, contract required with service provider 56K V.92® modem										
Modem											
Bluetooth™	Some: 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	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 & digitizer pen - 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

© Lenovo
(CML3-3) August 2010

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁶	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCle Mini Card WWAN	Carrier	Bat-Blue/ Fing	tery cells	Intel vPro	Workhorse (W) Gbl (G) Avail	date
3093-45U	i5-520UM	1.06	1.86	4GB	Multi	2.0M	320G	7200			upg		Yes	8	vPro	Pro 32	Jun 10
3093-46U	i5-520UM	1.06	1.86	4GB	Outdoor	2.0M	320G	7200			upg		Yes	8	vPro	Pro 32	Jun 10
3093-47U	i5-520UM	1.06	1.86	2GB	Entry	2.0M	320G	7200	DVD±RW	UltraB	upg		Yes	8	vPro	Pro 32	Jun 10
3093-48U	i5-520UM	1.06	1.86	2GB	Entry		250G	5400			upg			8	vPro	Pro 32	Jun 10
3093-4AU	i5-520UM	1.06	1.86	2GB	Entry		250G	5400			upg		Yes	8	vPro	Pro 32	Jun 10
3093-4CU	i5-520UM	1.06	1.86	2GB	Entry		160G	7200			upg			4	vPro	Pro 64	G Jun 10
3093-4DU	i5-520UM	1.06	1.86	2GB	Multi	2.0M	160G	7200			upg		Yes	8	vPro	Pro 64	G Jun 10
3093-4EU	i5-520UM	1.06	1.86	2GB	Entry	2.0M	320G	7200	DVD±RW	UltraB	Gobi	Verizon ¹⁶	Yes	8	vPro	Pro 64 W	Jun 10
3093-4FU	i5-520UM	1.06	1.86	2GB	Outdoor	2.0M	320G	7200			Gobi	Verizon	Yes	8	vPro	Pro 64 W	Jun 10
3093-4GU	i5-520UM	1.06	1.86	2GB	Outdoor	2.0M	160G	7200			upg		Yes	8	vPro	Pro 64 W G	Jun 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5 processor i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), 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 • 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 • Microsoft Office 2010 preloaded; purchase product key to activate • 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 1 socket; 1 socket available	
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB ⁸ (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 <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	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 1.5G/s 43N3292 – 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
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	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
Weight ² 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	One slot (ExpressCard/34, ExpressCard/54)	
Ports	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> Verizon®, contract required with service provider	
Modem	56K V.92 ⁹ modem	
Bluetooth™	<i>Some:</i> 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 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 (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Fingerprint reader		
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades ²² available	

ThinkPad® X201 Tablet (3093) - Windows 7 (October 2010)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁹	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card WWAN	Carrier	Blue/ Fing	Intel vPro	Preload	Avail date
3093-4MU	i5-560M	2.66	3.20	4GB	Entry	2.0M	320G	7200	DVD±RW	UltraBase	Gobi 2000	Verizon ¹⁶	Yes	vPro	Pro 32	Sep 10
3093-4PU	i5-560M	2.66	3.20	2GB	Entry		250G	5400			WWAN upg		Yes	vPro	Pro 64	Sep 10
<ul style="list-style-type: none">• These models have a depot repair service 3-year limited warranty• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5 processor i5-560M 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 • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate				
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, 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 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 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411				
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) <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus															
Camera	<i>Some:</i> 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 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				
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>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 Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe 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 / 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 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-yr battery & digitizer pen - depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced September 28

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(CML3-11) October 2010

ThinkPad® X201 Tablet (3113) - Onsite (Windows 7)

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	Blue/ Fing	Bat- tery Intel vPro	Workhorse (W) Gbl (G) GMP (P)	Avail date
3113-92U	i7-640LM	2.13	2.93	2GBx1	12.1" WXGA <i>Entry</i>	2.0M	320G 7200	DVD±RW	UltraB	Yes	8 vPro	Pro 32 W G P	Mar 10
3113-93U	i7-640LM	2.13	2.93	2GBx1	12.1" WXGA <i>Entry</i>		250G 5400			Yes	8 vPro	Pro 32 W G P	Mar 10
3113-94U	i7-620LM	2.00	2.80	2GBx1	12.1" WXGA <i>Entry</i>		250G 5400				8 vPro	Pro 32 W G P	Mar 10
3113-95U	i7-640LM	2.13	2.93	2GBx2	12.1" WXGA <i>Outdoor</i>	2.0M	320G 7200			Yes	8 vPro	Pro 32 W G P	Mar 10
3113-96U	i7-640LM	2.13	2.93	2GBx2	12.1" WXGA <i>Multi</i>	2.0M	320G 7200			Yes	8 vPro	Pro 32 W G P	Mar 10
3113-42U	i7-620LM	2.00	2.80	2GBx1	12.1" WXGA <i>Entry</i>	2.0M	160G 7200			Yes	8 vPro	Pro 64 W G P	Apr 10
3113-3ZU	i7-620LM	2.00	2.80	2GBx1	12.1" WXGA <i>Multi</i>	2.0M	160G 7200			Yes	8 vPro	Pro 64 W G P	Apr 10
3113-98U	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA <i>Entry</i>	2.0M	320G 7200	DVD±RW	UltraB	Yes	8 vPro	Pro 32 W G P	Jun 10
3113-9AU	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA <i>Entry</i>		160G 7200				4 vPro	Pro 64 W G P	Jun 10
3113-9BU	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA <i>Multi</i>	2.0M	160G 7200			Yes	8 vPro	Pro 64 W G P	Jun 10
3113-9CU	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA <i>Outdoor</i>	2.0M	160G 7200			Yes	8 vPro	Pro 64 W G P	Jun 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5 processor i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache or 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 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 • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch	
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		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 1.5G/s 43N3292 – 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	
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (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	Some: 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	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	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	Wireless WAN upgradable			
Modem	56K V.92 ⁶ modem			
Bluetooth™	Some: 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	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-year - battery & digitizer pen, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri, excluding holidays, next business day response / service upgrades ²² available			

See footnotes for important warranty information

US models announced May 25, 2010; previous models on February 23 or April 20, 2010

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(CML3-4) August 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
<ul style="list-style-type: none"> • These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR) • 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	
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) • N2U model: Education software - Microsoft® Office OneNote® 2007 (and CD) • N3U model: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Education software - Adobe Digital School Collection • Microsoft Office 2010 preloaded; purchase product key to activate	
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	<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)										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 1.5G/s 43N3292 - 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) <i>Color:</i> black; <i>Material:</i> magnesium alloy											
Weight ² Case	Lithium Ion 8-cell <i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr											
Battery - type												
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, 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 & digitizer pen - depot repair service / service upgrades²² available											

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

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(CML3-5) August 2010

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 rpm	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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)• 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	
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) • <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 • Microsoft Office 2010 preloaded; purchase product key to activate	
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 1.5G/s 43N3292 – 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	Lithium Ion 8-cell <i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr											
Battery - type												
Battery - life ¹⁰												
Chipset	Mobile Intel QM57 Express Chipset											
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (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)											
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 & digitizer pen, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri, excluding holidays, next business day response / 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

<i>Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase</i>		
Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
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

Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
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
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435	ann 06/22/10
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

⁵³ USB-only attach.

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 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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus 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
Lenovo Power Hub	57Y4600	ann 09/07/10
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
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

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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 Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

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> </table> <p>ThinkPlus Priority Support for enterprise customers</p> <ul style="list-style-type: none"> • 9x5 next-business-day response Lenovo Onsite Repair • 24x7 support with priority routing and advanced level technicians <p>ThinkPad notebook with 1-year Depot warranty</p> <table> <tr><td>3-year Priority Support</td><td>45J9094</td></tr> </table> <p>ThinkPad notebook with 3-year Depot warranty</p> <table> <tr><td>3-year Priority Support</td><td>45J9095</td></tr> <tr><td>4-year Priority Support</td><td>45J9096</td></tr> <tr><td>5-year Priority Support</td><td>45J9097</td></tr> <tr><td>3-year Priority Support 4-hour response</td><td>45J9101</td></tr> <tr><td>4-year Priority Support 4-hour response</td><td>45J9102</td></tr> <tr><td>5-year Priority Support 4-hour response</td><td>45J9103</td></tr> </table> <p>ThinkPad notebook with 3-year Onsite (GMP) warranty</p> <table> <tr><td>3-year Priority Support</td><td>45J9098</td></tr> <tr><td>4-year Priority Support</td><td>45J9099</td></tr> <tr><td>5-year Priority Support</td><td>45J9100</td></tr> <tr><td>3-year Priority Support 4-hour response</td><td>45J9104</td></tr> <tr><td>4-year Priority Support 4-hour response</td><td>45J9105</td></tr> <tr><td>5-year Priority Support 4-hour response</td><td>45J9106</td></tr> </table> <p>ThinkPad Workstation notebook with 1-year Depot warranty</p> <table> <tr><td>3-year Priority Support</td><td>45J9107</td></tr> </table> <p>ThinkPad Workstation notebook with 3-year Depot warranty</p> <table> <tr><td>3-year Priority Support</td><td>45J9108</td></tr> <tr><td>4-year Priority Support</td><td>45J9109</td></tr> <tr><td>5-year Priority Support</td><td>45J9110</td></tr> <tr><td>3-year Priority Support 4-hour response</td><td>45J9114</td></tr> <tr><td>4-year Priority Support 4-hour response</td><td>45J9115</td></tr> <tr><td>5-year Priority Support 4-hour response</td><td>45J9116</td></tr> </table> <p>ThinkPad Workstation notebook with 3-year Onsite (GMP) warranty</p> <table> <tr><td>3-year Priority Support</td><td>45J9111</td></tr> <tr><td>4-year Priority Support</td><td>45J9112</td></tr> <tr><td>5-year Priority Support</td><td>45J9113</td></tr> <tr><td>3-year Priority Support 4-hour response</td><td>45J9117</td></tr> <tr><td>4-year Priority Support 4-hour response</td><td>45K1520</td></tr> <tr><td>5-year Priority Support 4-hour response</td><td>45K1521</td></tr> </table>	1-year Lenovo Online Data Backup - 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<p>ThinkPlus service upgrade options for ThinkPad T/R series</p> <p>ThinkPad T/R series notebook with 1-year Depot warranty</p> <table> <tr><td>2-year parts and labor depot repair service</td><td>45K5971</td></tr> <tr><td>3-year parts and labor depot repair service</td><td>45K5972</td></tr> <tr><td>4-year parts and labor depot repair service</td><td>45K5974</td></tr> <tr><td>5-year parts and labor depot repair service</td><td>45K5976</td></tr> <tr><td>1-year LOR 9x5 Next Business Day</td><td>45K5968</td></tr> <tr><td>2-year LOR 9x5 Next Business Day</td><td>45K5969</td></tr> <tr><td>3-year LOR 9x5 Next Business Day</td><td>45K5970</td></tr> <tr><td>4-year LOR 9x5 Next Business Day</td><td>45K5973</td></tr> <tr><td>5-year LOR 9x5 Next Business Day</td><td>45K5975</td></tr> </table> <p>ThinkPad T/R series notebook with 3-year Depot warranty</p> <table> <tr><td>4-year parts and labor depot repair service</td><td>45K6023</td></tr> <tr><td>5-year parts and labor depot repair service</td><td>45K6025</td></tr> <tr><td>3-year LOR 9x5 Next Business Day</td><td>45K6021</td></tr> <tr><td>4-year LOR 9x5 Next Business Day</td><td>45K6022</td></tr> <tr><td>5-year LOR 9x5 Next Business Day</td><td>45K6024</td></tr> </table> <p>ThinkPad T/R series notebook with 3-year Onsite warranty</p> <table> <tr><td>4-year LOR 9x5 Next Business Day</td><td>45K6038</td></tr> <tr><td>5-year LOR 9x5 Next Business Day</td><td>43R2162</td></tr> </table>	2-year parts and labor depot repair service	45K5971	3-year parts and labor depot repair service	45K5972	4-year parts and labor depot repair service	45K5974	5-year parts and labor depot repair service	45K5976	1-year LOR 9x5 Next Business Day	45K5968	2-year LOR 9x5 Next Business Day	45K5969	3-year LOR 9x5 Next Business Day	45K5970	4-year LOR 9x5 Next Business Day	45K5973	5-year LOR 9x5 Next Business Day	45K5975	4-year parts and labor depot repair service	45K6023	5-year parts and labor depot repair service	45K6025	3-year LOR 9x5 Next Business Day	45K6021	4-year LOR 9x5 Next Business Day	45K6022	5-year LOR 9x5 Next Business Day	45K6024	4-year LOR 9x5 Next Business Day	45K6038	5-year LOR 9x5 Next Business Day	43R2162																																																																													
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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.

³⁷ **Optimus graphics** Optimus only switches in Windows 7 environment. It performs as discrete graphics in Windows Vista or Windows XP Professional environment.

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Personal Systems Reference Lenovo® ThinkPad® Edge Series and SL Series Notebooks

October 2010 - Version 386



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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"

ThinkPad® Edge 13" 0196 (Intel) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 2010 preloaded; purchase product key to activate • 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	<i>13.3W" (WxDxH):</i> 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		
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 April 6, 2010; previous models on January 5, 2010

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(PAR1-1) April 2010

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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 - 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 • Lenovo Online Data Backup • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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 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	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 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) 4-cell: starting at 3.61 lb (1.64kg); 6-cell: starting at 3.83 lb (1.74kg) Matte black (top) or glossy black (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>L325 models with 4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 5.0 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	AMD M780G Chipset , SB710 south bridge 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 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® RTL8191SE None None None Realtek RTL8111DL Gigabit Network Connection High Definition (HD) Audio, Conexant® CX20582 codec / stereo speakers, 1 watt x 2/ mono microphone, 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 January 5, 2010

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(PAR1-2) January 2010

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
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

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 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.**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 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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
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
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
Lenovo Power Hub	57Y4600	ann	09/07/10
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
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

More information at www.lenovo.com/support/cases**Monitors**

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
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 Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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 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	2+1GB	14.0" HD	320G 7200	Intel 6200 ²⁸			Matte black			6	Pro 64	Mar 10
⚡ 0578-25U	i3-330M	2.13	2GBx2	14.0" HD	250G 5400	11b/g/n			Matte black			4	Home P 64	Mar 10
⚡ 0578-27U	i3-330M	2.13	2GBx1	14.0" HD	250G 5400	Intel 1000			Glossy black			6	Pro 32	Mar 10
⚡ 0578-29U	i3-330M	2.13	2GBx1	14.0" HD	250G 5400	Intel 1000			Glossy black			6	Home P 64	Mar 10
⚡ 0578-2AU	i3-330M	2.13	2GBx2	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	2GBx2	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	2GBx2	14.0" HD	320G 7200	Intel 1000			Glossy black	Finger	Blue	6	Pro 64	Mar 10
⚡ 0578-66U	i3-330M	2.13	2+1GB	14.0" HD	320G 7200	Intel 1000			Glossy red		Blue	6	Home P 64	Mar 10
0578-28U	Cel P4500	1.86	2GBx1	14.0" HD	250G 5400	Intel 1000			Glossy black			6	Home P 64	Apr 10
0578-64U	Cel P4500	1.86	2GBx1	14.0" HD	250G 5400	Intel 1000			Glossy black			6	Pro 32	Apr 10
0578-7ZU	Cel P4500	1.86	2GBx1	14.0" HD	250G 5400	Intel 1000			Matte black			6	Home P 64	Apr 10
⚡ 0578-82U	i3-330M	2.13	2GBx1	14.0" HD	250G 5400	Intel 1000			Matte black			6	Pro 32	Apr 10
⚡ 0578-83U	i3-330M	2.13	2+1GB	14.0" HD	250G 5400	Intel 1000			Glossy red		Blue	6	Pro 32	Apr 10
⚡ 0578-84U	i3-330M	2.13	2+1GB	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	2GBx1	14.0" HD	250G 5400	Intel 1000			Matte black			6	Home P 64	Apr 10
⚡ 0578-86U	i3-330M	2.13	2GBx2	14.0" HD	320G 7200	Intel 1000			Matte black		Blue	6	Pro 64	Apr 10
⚡ 0578-C5U	i3-350M	2.26	2GBx1	14.0" HD	320G 7200	Intel 1000			Matte black		Blue	6	Pro 64	Apr 10
⚡ 0578-C6U	i3-350M	2.26	2GBx2	14.0" HD	500G 7200	Intel 1000			Glossy black		Blue	6	Pro 64	Apr 10
• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)														
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 / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets									Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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: 2048x1536@75Hz; 1920x1080 (HDMI port)</i>													
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 4-cell: from 4.72 lb (2.14kg); 6-cell: from 4.9 lb (2.22kg); 9-cell: 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													
Case material Battery - type ³⁷ Battery - life ¹⁰	Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell or 6-cell 4-cell: up to 2.9 hr; 6-cell: 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 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													
										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

⚡ US models withdrawn effective August 2010

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(BER1-1) April 2010

ThinkPad® Edge 14" 0578 (Intel) - TopSeller (Windows 7) - May 2010

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Max turbo (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			Matte black			6	Home P 64	May 10
0578-DGU	i3-350M	2.26		2GB	14.0" HD	320G 7200	Intel 1000			Glossy red			6	Pro 64	May 10
0578-DHU	i3-350M	2.26		4GB	14.0" HD	500G 5400	Intel 1000			Glossy red			6	Pro 64	May 10
0578-F5U	i3-370M	2.40		2GB	14.0" HD	250G 5400	Intel 1000			Matte black			6	Pro 64	Jul 10
0578-F6U	i3-370M	2.40		4GB	14.0" HD	320G 7200	Intel 1000			Matte black			6	Pro 64	Jul 10
0578-F7U	i3-370M	2.40		4GB	14.0" HD	320G 7200	Intel 1000			Matte black	Fing	Blue	6	Pro 64	Jul 10
0578-F8U	i3-370M	2.40		4GB	14.0" HD	320G 7200	Intel 1000	Gobi 2000	AT&T ²³	Matte black	Fing	Blue	6	Pro 64	Jul 10
0578-F9U	i3-370M	2.40		4GB	14.0" HD	320G 7200	Intel 1000			Glossy red	Fing	Blue	6	Pro 64	Jul 10
0578-HTU	i3-350M	2.26		4GB	14.0" HD	250G 5400	Intel 1000			Matte black			4	Home P 64	Jul 10
0578-HUU	i3-370M	2.40		4GB	14.0" HD	250G 5400	Intel 1000			Matte black			4	Home P 64	Jul 10
0578-HVU	i3-350M	2.26		4GB	14.0" HD	320G 5400	Intel 1000			Glossy black			4	Home P 64	Jul 10
0578-HWU	i3-370M	2.40		4GB	14.0" HD	320G 5400	Intel 1000			Glossy black			4	Home P 64	Jul 10
0578-HXU	i5-450M	2.40	2.66	4GB	14.0" HD	500G 5400	Intel 1000			Glossy black	Fing	Blue	6	Pro 64	Jul 10
0578-HZU	i3-350M	2.26		4GB	14.0" HD	500G 5400	Intel 1000			Glossy black			6	Pro 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-450M 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 Home Premium 64 - <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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch	
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 SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 250GB ⁸ (5400 rpm), 320GB (5400 or 7200 rpm), or 500GB (5400 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		Supports ThinkVantage® technologies	
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		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 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)		ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968	
PCIe Mini Card Intel 1000 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, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider		ThinkPlus 2-year LOR 9x5 NBD 45K5969	
Carrier Modem	<i>Some:</i> AT&T®, contract required with service provider None		ThinkPlus 3-year LOR 9x5 NBD 45K5970	
Bluetooth™ Ethernet Intel AMT Audio support	<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 Power-on password, hard disk password, supervisor password, security keyhole		ThinkPlus 4-year LOR 9x5 NBD 45K5973	
Security Security chip Fingerprint reader	None None <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor		ThinkPlus 2-year P&L P/U Depot 45K5971	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		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 July 6, 2010; previous models on May 4, 2010

US model withdrawn effective October 2010

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(BER1-2) July 2010

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Screen type	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	Top color	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Avail date
0199-22U	P820	1.80	<i>4GB</i>	14.0" HD	Glossy	2.0M	320G 7200	11b/g/n	Glossy red	Finger	Blue	6	Pro 64	Jun 10
0199-23U	P520	2.30	<i>4GB</i>	14.0" HD	Glossy	0.3M	320G 5400	11b/g/n	Glossy black			6	Home P 64	Jun 10
0199-24U	P320	2.10	2GB	14.0" HD			250G 5400	11b/g/n	Matte black			4	Home P 64	Jun 10
☞ 0199-27U	P320	2.10	2GB	14.0" HD		0.3M	250G 5400	11b/g/n	Matte black			6	Pro 64	Jul 10
☞ 0199-28U	P320	2.10	<i>4GB</i>	14.0" HD		2.0M	320G 7200	11b/g/n	Matte black	Finger	Blue	6	Pro 64	Jul 10
☞ 0199-29U	P520	2.30	2GB	14.0" HD		0.3M	250G 5400	11b/g/n	Matte black			6	Pro 64	Jul 10
☞ 0199-2AU	P520	2.30	<i>4GB</i>	14.0" HD		2.0M	320G 7200	11b/g/n	Matte black	Finger	Blue	6	Pro 64	Jul 10
☞ 0199-2BU	P820	1.80	2GB	14.0" HD		0.3M	250G 5400	11b/g/n	Matte black			6	Pro 64	Jul 10
☞ 0199-2CU	P820	1.80	<i>4GB</i>	14.0" HD		2.0M	320G 7200	11b/g/n	Matte black	Finger	Blue	6	Pro 64	Jul 10
☞ 0199-2DU	P820	1.80	<i>4GB</i>	14.0" HD		2.0M	500G 7200	11b/g/n	Matte black	Finger	Blue	6	Pro 64	Jul 10
☞ 0199-2EU	P820	1.80	<i>4GB</i>	14.0" HD	Glossy	2.0M	500G 7200	11b/g/n	Glossy black	Finger	Blue	6	Pro 64	Jul 10
☞ 0199-2FU	P820	1.80	<i>4GB</i>	14.0" HD	Glossy	2.0M	500G 7200	11b/g/n	Glossy red	Finger	Blue	6	Pro 64	Jul 10
☞ 0199-2GU	P520	2.30	<i>4GB</i>	14.0" HD	Glossy	2.0M	320G 7200	11b/g/n	Glossy red	Finger	Blue	6	Pro 64	Jul 10
☞ 0199-2HU	P520	2.30	2GB	14.0" HD		0.3M	320G 7200	11b/g/n	Matte black			6	Home P 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles AMD® Athlon™ II Dual-Core Mobile Processor P320 with dual-core, virtualization technology, integrated DDR3 memory controller, and 1MB L2 cache or AMD Turion™ II Dual-Core Mobile Processor P520 with dual-core, virtualization technology, integrated DDR3 memory controller, and 2MB L2 cache or AMD Phenom™ II Triple-Core Mobile Processor P820 with triple-core, virtualization technology, integrated DDR3 memory controller, and 1.5MB L2 cache	Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: 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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
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 SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 250GB ⁸ (5400 rpm), 320GB (5400 or 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> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD (1366x768) color, VibrantView (glossy), LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	<i>Some:</i> camera on top of screen, 0.3-megapixel or 2.0-megapixel, fixed focus	
Integrated graphics	ATI™ Radeon™ HD 4250 graphics , in RS880M, 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> 2456x1536@60Hz	
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	Supports ThinkVantage® technologies
ThinkLight™	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	<i>14.0W"</i> (WxDxH): 13.54" x 9.17" x 1.25-1.46"; 344 x 233mm x 31.8-37.0mm <i>4-cell:</i> from 4.78 lb (2.17kg); <i>6-cell:</i> from 4.96 lb (2.25kg); <i>9-cell:</i> from 5.36 lb (2.43kg) 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 2.6 hr; <i>6-cell:</i> up to 4 hr; <i>9-cell:</i> up to 6 hr	
Chipset ExpressCard/34 Multicard Reader Ports	AMD RS880M Chipset , SB820M south bridge 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)	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
PCIe Mini Card 11b/g/n Modem Bluetooth™ Ethernet Audio support	One PCI Express Half Mini Card slot 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None <i>Some:</i> Bluetooth 2.1 wireless Realtek® RTL8111DL Gigabit Network Connection 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	

See footnotes for important warranty information

☞ US models announced July 6, 2010; previous models on June 22, 2010

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Avail date
0199-4GU	P340	2.20	2GB	14.0" HD	0.3M	320G 7200	11b/g/n	Matte black	None	None	6	Pro 64	Sep 10
0199-4HU	P340	2.20	2GB	14.0" HD	0.3M	320G 7200	11b/g/n	Glossy red	None	None	6	Pro 64	Sep 10
0199-4JU	P540	2.40	2GB	14.0" HD	0.3M	320G 7200	11b/g/n	Matte black	None	None	6	Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles AMD® Athlon™ II Dual-Core Mobile Processor P340 with dual-core, virtualization technology, integrated DDR3 memory controller, and 1MB L2 cache or AMD Turion™ II Dual-Core Mobile Processor P540 with dual-core, virtualization technology, integrated DDR3 memory controller, and 2MB L2 cache		Preloaded operating system²⁰ - Genuine Windows® 7 Professional 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• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Microsoft Research AutoCollage Touch
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 320GB⁸ (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, 0.3-megapixel, fixed focus		
Integrated graphics	ATI™ Radeon™ HD 4250 graphics , in RS880M, 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 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		Supports ThinkVantage® technologies
ThinkLight™	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 ³⁷ Battery - life ¹⁰	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 4.78 lb (2.17kg); <i>6-cell:</i> from 4.96 lb (2.25kg); <i>9-cell:</i> from 5.36 lb (2.43kg) Matte black (top) or glossy red (top), trimmed with a thin silver band (side); black bottom Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.6 hr; <i>6-cell:</i> up to 4 hr; <i>9-cell:</i> up to 6 hr		
Chipset ExpressCard/34 Multicard Reader Ports	AMD RS880M Chipset , SB820M south bridge 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 Modem Bluetooth™ Ethernet Audio support	One PCI Express Half Mini Card slot 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None None Realtek® RTL8111DL Gigabit Network Connection 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 None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced September 28, 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
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

Storage and removable storage

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

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 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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
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	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
Lenovo Power Hub	57Y4600	ann	09/07/10
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 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
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

More information at www.lenovo.com/support/cases**Monitors**

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
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 Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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/accessorieswww.lenovo.com/support/notebookaccessorieswww.lenovo.com/support/securityOther 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- 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

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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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
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, 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)		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
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	15.6W" (WxDxH): 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		

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

< US models withdrawn effective August 2010

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(LDN1-1) March 2010

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Screen type	Disk SATA GB ⁸ rpm	PCle Mini Card 802.11	PCle Mini Card WWAN	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
0301-28U	Cel P4500	1.86		2GBx1	15.6" HD	Glossy	250G 5400	Intel 1000			Glossy black			6	Home P 64	Apr 10
0301-5NU	Cel P4500	1.86		2GBx1	15.6" HD	Glossy	250G 5400	Intel 1000			Matte black			6	Home P 64	Apr 10
< 0301-8GU	i3-330M	2.13		2GBx1	15.6" HD		250G 5400	Intel 1000			Matte black			6	Pro 32	Apr 10
< 0301-8HU	i3-330M	2.13		2GBx2	15.6" HD		320G 7200	WiMAX			Matte black	Fing	Blue	6	Pro 64	Apr 10
< 0301-8JU	i3-330M	2.13		2GBx1	15.6" HD	Glossy	250G 5400	Intel 1000			Matte black			6	Home P 64	Apr 10
< 0301-8KU	i3-330M	2.13		2GBx2	15.6" HD		320G 7200	Intel 1000			Matte black		Blue	6	Pro 64	Apr 10
< 0301-9AU	i3-330M	2.13		2GBx1	15.6" HD		250G 5400	Intel 1000	Gobi	AT&T ²³	Glossy black			6	Pro 32	Apr 10
0301-9CU	i3-350M	2.26		2GBx1	15.6" HD		320G 7200	Intel 1000			Matte black		Blue	6	Pro 64	Apr 10
0301-9DU	i3-350M	2.26		2GBx2	15.6" HD		500G 7200	Intel 1000			Glossy black		Blue	6	Pro 64	Apr 10
< 0301-89U	i5-430M	2.26	2.53	2GBx2	15.6" HD		500G 7200	Intel 1000			Glossy black	Fing	Blue	6	Pro 64	May 10
0301-8AU	i3-350M	2.26		2GBx1	15.6" HD	Glossy	250G 5400	Intel 1000			Matte black			4	Home P 64	May 10
0301-8BU	i3-350M	2.26		2GBx2	15.6" HD		500G 7200	Intel 1000			Glossy black	Fing		6	Pro 64	May 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 250GB ⁸ (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)		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
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	15.6W" (WxDxH): 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) or glossy black (top), trimmed with a thin silver band (side); black bottom		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
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)		
PCle Mini Card Intel 1000 WiMAX	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , PCle Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCle Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX		
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	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		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 May 4, 2010; previous models on April 6 or April 13, 2010

US models withdrawn effective August 2010

ThinkPad® Edge 15" 0301 (Intel) - TopSeller (Windows 7) - July 2010

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Screen type	Disk SATA GB ^a rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Avail date
0301-DBU	i3-370M	2.40		2GB	15.6" HD		250G 5400	Intel 1000			Matte black			6	Pro 64	Jul 10
0301-DCU	i3-370M	2.40		4GB	15.6" HD		320G 7200	Intel 1000			Matte black	Fing	Blue	6	Pro 64	Jul 10
0301-DDU	i3-370M	2.40		4GB	15.6" HD		320G 7200	Intel 1000	Gobi 2000	AT&T ²³	Matte black	Fing	Blue	6	Pro 64	Jul 10
0301-DEU	i3-370M	2.40		4GB	15.6" HD		320G 7200	Intel 1000			Glossy red	Fing	Blue	6	Pro 64	Jul 10
0301-ECU	i3-370M	2.40		4GB	15.6" HD	Glossy	250G 5400	Intel 1000			Matte black			4	Home P	Jul 10
0301-EDU	i3-370M	2.40		4GB	15.6" HD		500G 7200	Intel 1000			Glossy black	Fing	Blue	6	Pro 64	Jul 10
0301-EEU	i3-350M	2.26		4GB	15.6" HD		500G 7200	Intel 1000			Glossy black	Fing	Blue	6	Pro 64	Jul 10
0301-EFU	i3-370M	2.40		2GB	15.6" HD		250G 5400	Intel 1000			Glossy black			6	Home P	Jul 10
0301-EGU	i3-370M	2.40		3GB	15.6" HD		320G 7200	Intel 1000			Glossy red		Blue	6	Home P	Jul 10
0301-EHU	i5-450M	2.40	2.66	4GB	15.6" HD		500G 5400	Intel 1000			Glossy black	Fing	Blue	6	Pro 64	Jul 10
0301-EJU	i5-450M	2.40	2.66	4GB	15.6" HD		500G 7200	Intel 1000			Glossy black	Fing	Blue	6	Pro 64	Jul 10
0301-EMU	i3-350M	2.26		2GB	15.6" HD		250G 5400	Intel 1000	Gobi 2000	AT&T	Glossy black			6	Pro 32	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-450M 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 <ul style="list-style-type: none">- <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) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Password Manager• ThinkVantage Power Manager• ThinkVantage System Update• ThinkVantage Toolbox• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Microsoft Research AutoCollage Touch
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), 320GB (7200 rpm), or 500GB (5400 or 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	15.6W" (WxDxH): 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	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
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 Intel 1000 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, 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®, 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 Power-on password, hard disk password, supervisor password, security keyhole	
Security Security chip Fingerprint reader	None 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 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 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 July 6, 2010

0301 US model withdrawn effective October 2010

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(LDN1-5) July 2010

Type-model	Processor	GHz	Memory	Wide-screen display	Screen type	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Avail date
0302-22U	P820	1.80	4GB	15.6" HD	Glossy	2.0M	320G 7200	11b/g/n	Glossy red	Finger	Blue	6	Pro 64	Jun 10
0302-23U	P520	2.30	4GB	15.6" HD	Glossy	0.3M	320G 5400	11b/g/n	Glossy black			6	Home P 64	Jun 10
0302-24U	P320	2.10	2GB	15.6" HD			250G 5400	11b/g/n	Matte black			4	Home P 64	Jun 10
0302-2BU	P320	2.10	2GB	15.6" HD		2.0M	250G 5400	11b/g/n	Matte black			6	Pro 64	Jul 10
0302-2CU	P320	2.10	4GB	15.6" HD		2.0M	320G 7200	11b/g/n	Matte black	Finger	Blue	6	Pro 64	Jul 10
0302-2DU	P520	2.30	2GB	15.6" HD		2.0M	250G 5400	11b/g/n	Matte black			6	Pro 64	Jul 10
0302-2EU	P520	2.30	4GB	15.6" HD		2.0M	320G 7200	11b/g/n	Matte black	Finger	Blue	6	Pro 64	Jul 10
0302-2FU	P820	1.80	2GB	15.6" HD		2.0M	250G 5400	11b/g/n	Matte black			6	Pro 64	Jul 10
0302-2GU	P820	1.80	4GB	15.6" HD		2.0M	500G 7200	11b/g/n	Matte black	Finger	Blue	6	Pro 64	Jul 10
0302-2HU	P820	1.80	4GB	15.6" HD	Glossy	2.0M	500G 7200	11b/g/n	Glossy black	Finger	Blue	6	Pro 64	Jul 10
0302-2JU	P820	1.80	4GB	15.6" HD	Glossy	2.0M	500G 7200	11b/g/n	Glossy red	Finger	Blue	6	Pro 64	Jul 10
0302-2KU	P520	2.30	4GB	15.6" HD	Glossy	2.0M	320G 7200	11b/g/n	Glossy red	Finger	Blue	6	Pro 64	Jul 10
0302-2LU	P520	2.30	2GB	15.6" HD		2.0M	320G 7200	11b/g/n	Matte black			6	Home P 64	Jul 10
0302-3HU	P820	1.80	4GB	15.6" HD		2.0M	320G 7200	11b/g/n	Glossy red	Finger	Blue	6	Pro 64	Jul 10
0302-3JU	P520	2.30	4GB	15.6" HD	Glossy	0.3M	320G 5400	11b/g/n	Glossy black			6	Home P 64	Jul 10
0302-3KU	P520	2.30	2GB	15.6" HD		0.3M	320G 7200	11b/g/n	Glossy black			6	Home P 64	Jul 10
0302-3LU	P520	2.30	2GB	15.6" HD		0.3M	320G 7200	11b/g/n	Glossy red			6	Home P 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles AMD® Athlon™ II Dual-Core Mobile Processor P320 with dual-core, virtualization technology, integrated DDR3 memory controller, and 1MB L2 cache or AMD Turion™ II Dual-Core Mobile Processor P520 with dual-core, virtualization technology, integrated DDR3 memory controller, and 2MB L2 cache or AMD Phenom™ II Triple-Core Mobile Processor P820 with triple-core, virtualization technology, integrated DDR3 memory controller, and 1.5MB L2 cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 64 - 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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
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 SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 250GB⁸ (5400 rpm), 320GB (5400 or 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	<i>Some:</i> camera on top of screen, 0.3-megapixel or 2.0-megapixel, fixed focus	
Integrated graphics	ATI™ Radeon™ HD 4250 graphics , in RS880M, 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> 2456x1536@60Hz	
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	Supports ThinkVantage® technologies
ThinkLight™	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	15.6W" (WxDxH): 14.96" x 9.72" x 1.27-1.48"; 380 x 247mm x 32.3-37.5mm <i>4-cell:</i> from 5.40 lb (2.45kg); <i>6-cell:</i> from 5.58 lb (2.53kg); <i>9-cell:</i> from 5.95 lb (2.70kg) Matte black (top), glossy black (top), or glossy red (top), trimmed with a thin silver band (side); black bottom	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type ³⁷ Battery - life ¹⁰	Lithium Ion 4-cell or 6-cell <i>4-cell:</i> up to 2.6 hr; <i>6-cell:</i> up to 4 hr; <i>9-cell:</i> up to 6 hr	
Chipset ExpressCard/34 Multicard Reader Ports	AMD RS880M Chipset , SB820M south bridge 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)	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
PCIe Mini Card 11b/g/n Modem Bluetooth™ Ethernet Audio support	One PCI Express Half Mini Card slot 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None <i>Some:</i> Bluetooth 2.1 wireless Realtek® RTL8111DL Gigabit Network Connection 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	

See footnotes for important warranty information

US models announced July 6, 2010; previous models on June 22, 2010

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	Top color	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Avail date
0302-44U	P340	2.20	2GB	15.6" HD	2.0M	320G 7200	11b/g/n	Matte black	None	None	6	Pro 64	Sep 10
0302-45U	P540	2.40	2GB	15.6" HD	2.0M	320G 7200	11b/g/n	Matte black	None	None	6	Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles AMD® Athlon™ II Dual-Core Mobile Processor P340 with dual-core , virtualization technology, integrated DDR3 memory controller, and 1MB L2 cache or AMD Turion™ II Dual-Core Mobile Processor P540 with dual-core , virtualization technology, integrated DDR3 memory controller, and 2MB 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 • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch				
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 320GB⁸ (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	ATI™ Radeon™ HD 4250 graphics , in RS880M, 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> 2456x1536@60Hz												
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								Supports ThinkVantage® technologies				
ThinkLight™	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	15.6W" (WxDxH): 14.96" x 9.72" x 1.27-1.48"; 380 x 247mm x 32.3-37.5mm <i>4-cell:</i> from 5.40 lb (2.45kg); <i>6-cell:</i> from 5.58 lb (2.53kg); <i>9-cell:</i> from 5.95 lb (2.70kg)												
Case color	Matte black (top), trimmed with a thin silver band (side); black bottom												
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type ³⁷ Battery - life ¹⁰	Lithium Ion 6-cell <i>4-cell:</i> up to 2.6 hr; <i>6-cell:</i> up to 4 hr; <i>9-cell:</i> up to 6 hr												
Chipset	AMD RS880M Chipset , SB820M south bridge								ThinkPlus™. 22 1-year LOR ²⁴ 9x5 NBD 45K5968				
ExpressCard/34	One 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 (VGA DB-15, HDMI), ethernet (RJ-45)								ThinkPlus 4-year LOR 9x5 NBD 45K5973				
PCIe Mini Card	One PCI Express Half Mini Card slot								ThinkPlus 2-year P&L P/U Depot 45K5971				
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card								ThinkPlus 3-year P&L P/U Depot 45K5972				
Modem	None								ThinkPlus 4-year P&L P/U Depot 45K5974				
Bluetooth™	None												
Ethernet	Realtek® RTL8111DL Gigabit Network Connection												
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								Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced September 28, 2010

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(LDN1-6) October 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
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

Storage and removable storage

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
Lenovo 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

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 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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
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	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
Lenovo Power Hub	57Y4600	ann	09/07/10
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
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

More information at www.lenovo.com/support/cases**Monitors**

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
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 Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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/accessorieswww.lenovo.com/support/notebookaccessorieswww.lenovo.com/support/securityOther 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 (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
2842-K3U	T6670	2.20	2GB	14.0" HD	LED	Glossy	0.3M	GMA	250G 5400	DVD±RW	* Intel 1000	None			6	Pro 64	Sep 10
2842-K4U	T6670	2.20	3GB	14.0" HD	LED	Glossy	0.3M	GMA	500G 7200	DVD±RW	* Intel 1000	None			6	Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Processor	Intel® Core™ 2 Duo processor T6570 or T6670 with dual-core, 800MHz system bus, and 2MB L2 cache		<div>Preloaded operating system²⁰</div> <div>- Some: Genuine Windows® 7 Professional 32</div> <div>- Some: Genuine Windows 7 Professional 64</div> <div>Preloaded applications¹⁴ (only some listed)</div> <div><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• Microsoft Office 2010 preloaded; purchase product key to activate• Adobe® Reader®• Adobe Flash® Player• Roxio® Creator® Business Edition (DVD±RW)</div> <div>Supports ThinkVantage® technologies</div> <div>65-watt (GMA graphics) AC adapter</div> <div>EPEAT™ Gold rating</div> <div>ENERGY STAR® 5.0-compliant</div> <div>RoHS-compliant</div> <div>International Warranty Service¹⁷</div> <div>24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</div> <div>ThinkPlus™. 22 1-year LOR²⁴ 9x5 NBD 45K5968</div> <div>ThinkPlus 2-year LOR 9x5 NBD 45K5969</div> <div>ThinkPlus 3-year LOR 9x5 NBD 45K5970</div> <div>ThinkPlus 4-year LOR 9x5 NBD 45K5973</div> <div>ThinkPlus 5-year LOR 9x5 NBD 45K5975</div> <div>ThinkPlus 2-year P&L P/U Depot 45K5971</div> <div>ThinkPlus 3-year P&L P/U Depot 45K5972</div> <div>ThinkPlus 4-year P&L P/U Depot 45K5974</div> <div>ThinkPlus 5-year P&L P/U Depot 45K5976</div> <div>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</div>
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), 320GB (7200 rpm), or 500GB (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 Camera on top of screen, 0.3-megapixel or 2.0-megapixel, fixed focus		
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		
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 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	One Mini PCI Express slot 11b/g/n wireless ⁴ , Mini PCIe adapter, Intel Centrino® Wireless-N 1000, 1x2 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 Power-on password, hard disk password, supervisor password, security keyhole		
Security Security chip Fingerprint reader	None 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 models announced September 28, 2010; previous models on December 15, 2009

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(JAD1-3) October 2010

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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Microsoft Research AutoCollage Touch• 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 SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ® (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	14.0" (355mm) HD (1366x768) color, VibrantView (glossy), 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	
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)	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
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 14.0W" (WxDxH):</i> 13.54" x 9.17" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> starting at 4.59 lb (2.08kg); <i>6-cell:</i> starting at 5.1 lb (2.3kg) 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	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) June 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

Storage and removable storage

SL410/510 500GB Disk SATA 3G/s (5400 rpm)	43N3422	ann 10/22/09
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

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 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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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
Lenovo Power Hub	57Y4600	ann 09/07/10
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 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
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

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

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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 Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

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

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 (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	Finger Blue- tooth 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		GMA	250G 5400	DVD±RW *	Intel 5100		Blue	6	Home P	Oct 09
2847-2QU	P8700	2.53	4GB	15.6"	HD	LED		GMA	320G 5400	DVD±RW *	Intel 5100		Blue	6	Pro 64	Oct 09
2847-6GU	T6670	2.20	2GB	15.6"	HD	LED		GMA	250G 5400	DVD±RW *	WiMAX			6	Pro 32	Nov 09
2847-6HU	T6670	2.20	3GB	15.6"	HD	LED		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	GMA	320G 7200	DVD±RW *	Intel 1000 ²⁸		Blue	6	Home P	Jan 10
2847-9YU	T6670	2.20	4GB	15.6"	HD	LED		GMA	320G 7200	DVD±RW *	Intel 1000		Blue	6	Pro 64	Jan 10
2847-9UU	T6570	2.10	2GB	15.6"	HD	LED		GMA	250G 5400	DVD±RW *	Intel 1000			6	Pro 32	Jan 10
2847-9XU	T6570	2.10	3GB	15.6"	HD	LED		GMA	320G 7200	DVD±RW *	Intel 1000			6	Pro 32	Jan 10
2847-9ZU	T6670	2.20	3GB	15.6"	HD	LED		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	GMA	250G 5400	DVD±RW *	Intel 1000			6	Home P	Apr 10
2847-CZU	T6670	2.20	2GB	15.6"	HD	LED		GMA	250G 5400	DVD±RW *	Intel 1000			6	Pro 64	Sep 10
2847-D2U	T6670	2.20	3GB	15.6"	HD	LED		GMA	500G 7200	DVD±RW *	Intel 1000			6	Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in	
SATA disk	160GB ⁸ (5400 rpm), 250GB (5400 rpm), 320GB (5400 or 7200 rpm), or 500GB (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: camera on top of screen, 0.3-megapixel or 2.0-megapixel, fixed focus	
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	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys	
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch illuminated power button	
Lighting FX		
Dimensions ³	4/6-cell 15.6W" (WxDxH): 14.9" x 9.72" x 1.26–1.42"; 380 x 247mm x 32–36mm	
Weight ²	4-cell: starting at 5.17 lb (2.35kg); 6-cell: starting at 5.64 lb (2.56kg)	
Case	Color: ThinkPad Matte Black; Material: Scratch-resistant ABS plastic	
Battery - type ³⁷	Lithium Ion 6-cell	
Battery - life ¹⁰	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)	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	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 or two Mini PCI Express slots	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD
Intel 1000 ²⁸	Some: 11b/g/n wireless ⁴ , Mini PCIe adapter, Intel Centrino® Wireless-N 1000, 1x2	45K5968
Intel 5100 ²⁸	Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	45K5969
WiMAX	Some: 11a/b/g/n and WiMAX wireless, Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)	45K5970
Verizon ¹⁶	Some: Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adaptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon®	45K5973
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®	45K5975
Modem	None	ThinkPlus 2-year P&L P/U Depot
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator	45K5971
Ethernet	Realtek® RTL8111DL Gigabit Network Connection, PHY, PCIe x1	45K5972
Intel AMT	None	45K5974
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	45K5976
Security	Power-on password, hard disk password, supervisor password, security keyhole	Post-warranty annual maintenance agreements at
Security chip	None	lenovo.com/thinkplus/warranty
Fingerprint reader	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 models announced September 28, 2010;

Intel Centrino 2 processor technology

previous models on October 22, November 17, or December 15, 2009, or April 6, 2010

US models withdrawn effective February 2010

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(TOP1-3) October 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 ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue/ Fing cells	Bat- tery 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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				
Memory	1GB or 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										Preloaded applications ¹⁴ (only some listed)				
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™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 				
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> camera on top of screen, 2.0-megapixel, fixed focus														
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														
Lighting FX	Illuminated power button														
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										Supports ThinkVantage® technologies				
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)										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				
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)										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				
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										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) June 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

Storage and removable storage

SL410/510 500GB Disk SATA 3G/s (5400 rpm)	43N3422	ann	10/22/09
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

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 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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
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
Lenovo Power Hub	57Y4600	ann	09/07/10
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 15.6" 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

More information at www.lenovo.com/support/cases**Monitors**

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
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 Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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/accessorieswww.lenovo.com/support/notebookaccessorieswww.lenovo.com/support/securityOther 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.

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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October 2010
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Personal Systems Reference Lenovo® ThinkCentre Desktops

October 2010 - Version 386

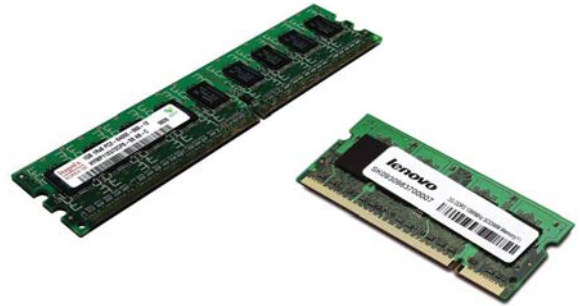


Lenovo ThinkCentre M90/M90p
(Eco Ultra Small, Small, Tower Form Factors)

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 Low-Halogen SODIMM 55Y3706
2GB PC3-8500 DDR3 Low-Halogen SODIMM 55Y3707
(UDIMM for SFF, Tower only; SODIMM for Eco USFF only)



NVIDIA® GeForce® 310 DMS59 (2-DVI, 2-VGA)
57Y4167



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

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	Essential business features, exceptional value Intel® Pentium® Processor E6300 with dual-core, 1066MHz system bus, and 2MB L2 cache Processor in LGA775 socket			Small <div><div>opticaldisk (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 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 <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 [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">• 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			Supports ThinkVantage® technologies																								
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)			GREENGUARD® certified RoHS-compliant																								
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			Limited Warranty¹ <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																								
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 <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)																								
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																											
Power supply	280 watts with variable speed fan, autosensing																											
			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>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	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	NVIDIA® Quadro® 256MB NVS 290	43R1765		
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ADD2 DVI-D Monitor Connection (HDCP)	43R1985																											
NVIDIA® Quadro® 256MB NVS 290	43R1765																											

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	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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

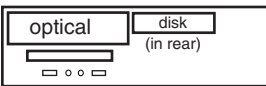
Positioning Processor	Essential business features, exceptional value Intel® Celeron® Processor E3200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache			Small <div><div>optical</div><div>disk (in rear)</div></div>																										
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																										
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			• 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)			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)																													
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Intel AMT	None																													
Modem	None																													
Security chip	None			Limited Warranty¹ <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																										
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Power supply	280 watts with variable speed fan, autosensing																													
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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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>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>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	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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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	Essential business features, exceptional value 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																					
Implementation	Processor in LGA775 socket		<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																					
Memory	1GB, 2GB, or 3GB std, 4GB max⁸, 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 [1GB models], 1GB [2GB or 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">• 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• Some: 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		Supports ThinkVantage® technologies																					
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)		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		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	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		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>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	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	NVIDIA® Quadro® 256MB NVS 290	43R1765
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																							
NVIDIA® Quadro® 256MB NVS 290	43R1765																							
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)																								

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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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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Essential business features, exceptional value 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>opticaldisk (in rear)</div><div><div></div><div></div><div></div><div></div></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 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 <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			
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	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)		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		Supports ThinkVantage® technologies	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		GREENGUARD® certified	
Intel AMT	None		RoHS-compliant	
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		
- 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		DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	
• ThinkVantage Toolbox		Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
• Lenovo Online Data Backup		DisplayPort™ to Single-link DVI-D Cable	45J7915	
• Norton™ Internet Security 2011 (30 days of virus definitions)		ADD2 DVI-D Monitor Connection (HDCP)	43R1985	
• Adobe® Reader®		NVIDIA® Quadro® 256MB NVS 290	43R1765	
• Adobe Flash® Player		More accessories on O-M58E sheet		
• Skype™ for Windows		Acc Guide in pdf lenovo.com/accessoriesguide		
• Microsoft Office 2010 preloaded; purchase product key to activate		Other accessories at lenovo.com/accessories		
• Roxio® Creator® Business Edition (DVD±RW)				
• Roxio MyDVD® (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		

See footnotes for important warranty information

US model announced March 2, 2010; previous models on January 12, 2010

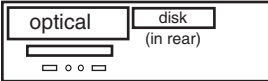
US model withdrawn effective April 2010

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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	Essential business features, exceptional value 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  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• <i>Some:</i> system floor stand for vertical orientation																					
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		<div>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</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, 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</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>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	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																							
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																							
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 March 10 or March 24, 2009

✖ US models withdrawn effective October or December 2009

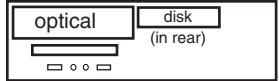
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(MIAM1-3) April 2009

ThinkCentre® M58e Small (7303) - XP with Win 7 License

Personal Systems Reference (PSREF)

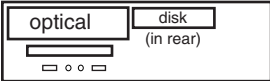
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Preload	Global Educ	Avail date
M58e	7303-R1U	2x3	Pentium E6300	2.80	2MB	2	1GB	250GB ²	DVD	GMA	XP Pro		Oct 09
M58e	7303-R2U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro		Oct 09
M58e	7303-R3U	2x3	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

• **These models have a 3-year limited warranty¹**

Positioning Processor	Essential business features, exceptional value 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	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 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	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) - 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	Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant
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)	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	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"> • <i>Some:</i> 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 • 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)
Speaker	One internal speaker for business audio	
IEEE 1394	None	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®	
Intel AMT	None	Accessories <ul style="list-style-type: none"> 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 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
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	Preload 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"> • <i>Some:</i> 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 • 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)
Power supply	280 watts with variable speed fan, autosensing	

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	
<ul style="list-style-type: none">• These models have a 3-year limited warranty¹• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)															
Positioning Processor	Essential business features, exceptional value 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 Processor in FC-LGA6 or FC-LGA8 package 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)				
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket								Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3						
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								<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]), 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	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening								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 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											
- Genuine Windows® Vista® Business 32				1GB PC2-6400 DDR2 UDIMM				41U2977							
Preloaded applications⁵				2GB PC2-6400 DDR2 UDIMM				41U2978							
• Rescue and Recovery™				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990							
• Client Security Solution™				1TB SATA 3.0Gb/s Disk (7200 rpm)				45J7918							
• ThinkVantage Productivity Center				DVD-ROM DL SATA 1.5Gb/s 16-48X Max				41N5618							
• ThinkVantage System Update				Super Multi-Burner DL DVD±RW SATA Drive				41N5620							
• ThinkVantage Power Manager				DisplayPort to Single-link DVI-D Cable				45J7915							
• McAfee® VirusScan® Plus (30 days of virus definitions)				ADD2 DVI-D Monitor Connection (HDCP)				43R1985							
• Lenovo System Toolbox				NVIDIA® Quadro® 256MB NVS 290				43R1765							
• Adobe® Reader®				More accessories on O-M58E sheet											
• Windows Live™ Toolbar				Acc Guide in pdf lenovo.com/accessoriesguide											
• Microsoft Office 2010 preloaded; purchase product key to activate				Other accessories at lenovo.com/accessories											
• Roxio® Creator® Business Edition (DVD±RW)															
• Roxio MyDVD® (DVD±RW)															
• Corel® WinDVD® (DVD, DVD±RW)															

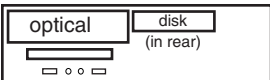
See footnotes for important warranty information

US models announced March 10, 2009

⚠ US models withdrawn effective October or December 2009

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(MIAM1-4) March 2009

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	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
<ul style="list-style-type: none">• These models have a 3-year limited warranty¹• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)													
Positioning Processor		Essential business features, exceptional value 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							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 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							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 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											
Preloaded operating system ²⁰		Accessories											
- Genuine Windows® 7 Professional 32		1GB PC2-6400 DDR2 UDIMM 41U2977											
Preloaded applications ⁵ (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		DisplayPort™ to Single-link DVI-D Cable 45J7915											
• Lenovo Online Data Backup		ADD2 DVI-D Monitor Connection (HDCP) 43R1985											
• Norton™ Internet Security 2011 (30 days of virus definitions)		NVIDIA® Quadro® 256MB NVS 290 43R1765											
• Adobe® Reader®		More accessories on O-M58E sheet											
• Adobe Flash® Player		Acc Guide in pdf lenovo.com/accessoriesguide											
• Skype™ for Windows		Other accessories at lenovo.com/accessories											
• Microsoft Office 2010 preloaded; purchase product key to activate													
• Roxio® Creator® Business Edition (DVD±RW)													
• Roxio MyDVD® (DVD±RW)													

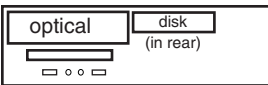
- ***These models have a 3-year limited warranty¹***

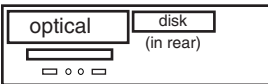
See footnotes for important warranty information
US models announced March 10 or March 24, 2009
%: US models withdrawn effective June, October, or December 2009

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(MIAM1-5) June 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	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

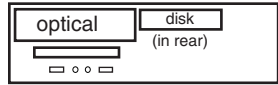
- *These models have a 3-year limited warranty¹*

Positioning Processor	Essential business features, exceptional value 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 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 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			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±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			Supports ThinkVantage® technologies		
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			Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant		
Preloaded operating system²⁰				Limited Warranty¹		
Accessories				<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		
<ul style="list-style-type: none">- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)						
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)						
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						
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						

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	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
• <i>This model has a 3-year limited warranty¹</i>														
Positioning Processor	Essential business features, exceptional value Intel® Pentium® Processor E6300 with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB 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 • 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 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													
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													
SATA disk	250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts								Security • 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													
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, 85% PSU								Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant					
Preloaded operating system²⁰		Accessories												
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional		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) Super Multi-Burner DL DVD±RW SATA Drive DisplayPort™ to Single-link DVI-D Cable ADD2 DVI-D Monitor Connection (HDCP) 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 41N5620 45J7915 43R1985 43R1765						
Preloaded applications⁵ (only some listed)										Limited Warranty¹ ⇒ 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				
• 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	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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Essential business features, exceptional value</i> 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			1GB PC2-6400 DDR2 UDIMM 41U2977
Preloaded applications ⁵			2GB PC2-6400 DDR2 UDIMM 41U2978
• Rescue and Recovery™			250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015
• Client Security Solution™			500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990
• ThinkVantage Productivity Center			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
• McAfee® VirusScan® Plus			ADD2 DVI-D Monitor Connection (HDCP) 43R1985
(30 days of virus definitions)			NVIDIA® Quadro® 256MB NVS 290 43R1765
• Lenovo System Toolbox			More accessories on O-M58E sheet
• Adobe® Reader®			Acc Guide in pdf lenovo.com/accessoriesguide
• Windows Live™ Toolbar			Other accessories at lenovo.com/accessories
• Microsoft Office 2010 preloaded; purchase product key to activate			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD±RW)			
			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 Warranty ¹
			⇒ 3-year parts and labor
			⇒ International Warranty Service ⁹
			⇒ 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
			• 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 period ¹ via 800-426-7378

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Essential business features, exceptional value 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-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			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																				
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																							
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) - 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 system ²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Business 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>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>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr></table> More accessories on O-M58E 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	NVIDIA® Quadro® 256MB NVS 290	43R1765
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																							
NVIDIA® Quadro® 256MB NVS 290	43R1765																							
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 2010 preloaded; purchase product key to activate• 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																				
				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																				

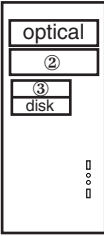
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Global Educ	Avail date
M58e	7258-B1U	4x4	Pentium E6300	2.80	2MB	2	1GB	250GB ²	None	DVD	GMA	XP Pro	None	Nov 09
M58e	7258-B2U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro	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	Essential business features, exceptional value Intel® Pentium® Processor E6300 with dual-core, 1066MHz system bus, and 2MB L2 cache Processor in LGA775 socket		<div><div>optical</div><div>②</div><div>③</div><div>disk</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		<div><div>Bay ① 5.25", 1.6" high, access, std optical</div><div>Bay ② 5.25", 1.6" high, access, open</div><div>Bay ③ 3.5", 1" high, access, open (reader/diskette)</div><div>Bay ④ 3.5", 1" high, no access, std disk</div><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></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		
<div><div><div>Preloaded operating system²⁰<ul style="list-style-type: none">Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional</div><div>Preloaded applications⁵ (only some listed)<ul style="list-style-type: none">Rescue and Recovery™Client Security Solution™ThinkVantage Productivity CenterThinkVantage System UpdateThinkVantage Power ManagerMcAfee® VirusScan® Plus (30 days of virus definitions)Lenovo System ToolboxAdobe® Reader®Windows Live™ ToolbarMicrosoft® Office 2007 Trial (60-day)Roxio® Creator® Business Edition (DVD±RW)Roxio MyDVD® (DVD±RW)Corel® WinDVD® (DVD, DVD±RW)</div></div><div><div>Accessories<ul style="list-style-type: none">1GB PC2-6400 DDR2 UDIMM2GB PC2-6400 DDR2 UDIMM500GB SATA 3.0Gb/s Disk (7200 rpm)1TB SATA 3.0Gb/s Disk (7200 rpm)DVD-ROM DL SATA 1.5Gb/s 16-48X MaxSuper Multi-Burner DL DVD±RW SATA DriveBlu-ray™ Burner SATA 1.5Gb/s DriveDisplayPort™ to Single-link DVI-D CableADD2 DVI-D Monitor Connection (HDCP)NVIDIA® Quadro® 256MB NVS 290More accessories on O-M58E sheetAcc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories</div></div></div>			
			</

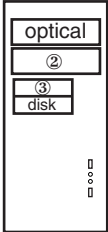
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7258-D3U	4x4	Celeron E3200	2.40	1MB	2	1GB	250GB ²	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7258-D2U	4x4	Pentium E5400	2.70	2MB	2	2GB	250GB	None	DVD±RW	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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Essential business features, exceptional value 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								<div>Bay ① 5.25", 1.6" high, access, std optical</div> <div>Bay ② 5.25", 1.6" high, access, open</div> <div>Bay ③ 3.5", 1" high, access, open (reader/diskette)</div> <div>Bay ④ 3.5", 1" high, no access, std disk</div> <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>					
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								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 disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7								Supports ThinkVantage® technologies					
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								GREENGUARD® certified RoHS-compliant					
eSATA port	None													
Diskette drive	None								Limited Warranty¹ <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					
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)								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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)					
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								Accessories <div>1GB PC2-6400 DDR2 UDIMM 41U2977</div> <div>2GB PC2-6400 DDR2 UDIMM 41U2978</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>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</div> <div>DisplayPort™ to Single-link DVI-D Cable 45J7915</div> <div>ADD2 DVI-D Monitor Connection (HDCP) 43R1985</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>					
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								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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)					
Power supply	280 watts with variable speed fan, manual switch													

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 Processor	Essential business features, exceptional value 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									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, 2GB, or 3GB std, 4GB max⁸, 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 [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												Supports ThinkVantage® technologies										
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®												GREENGUARD® certified RoHS-compliant										
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															
				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															
				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)																							

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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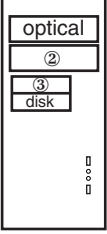
(MIAM3-10) March 2010

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
 • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

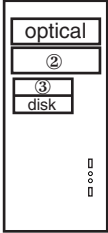
Positioning Processor	Essential business features, exceptional value Intel® Pentium® Processor E5400 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q9400 or Q9500 with quad-core , 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket	Tower • 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			
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 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 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	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		
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 system ²⁰	- Genuine Windows® 7 Professional 32		
Preloaded applications ⁵ (only some listed)	• Rescue and Recovery™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW)	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 Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675 DisplayPort™ to Single-link DVI-D Cable 45J7915 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 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 • 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 • 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 ➤ 3-year parts and labor ➤ International Warranty Service® ➤ 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 model announced March 2, 2010; previous models on January 12, 2010

US model withdrawn effective April 2010














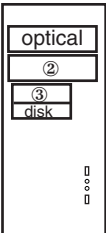
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(MIAM3-16) March 2010

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	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																								
<ul style="list-style-type: none">• These models have a 1-year limited warranty¹• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																																									
Positioning Processor	<i>Essential business features, exceptional value</i> 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 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																															
Memory	2GB std , 4GB max ⁶ , 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 ② 5.25", 1.6" high, access, open																															
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									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																															
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Slot 1: half-length, full-height, PCI Express x16 (75w max)																															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7									Slot 2: half-length, full-height, PCI Express x1																															
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive									Slot 3: half-length, full-height, 32-bit PCI 2.3**																															
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors									Slot 4: half-length, full-height, 32-bit PCI 2.3																															
eSATA port	None																																								
Diskette drive	None																																								
Media reader	Some: 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)												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	Some: 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																																								
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, manual switch												GREENGUARD® certified RoHS-compliant																												
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Business 32✧ Vista Basic logo				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>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	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	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">➤ 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			
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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More accessories on O-M58E sheet																																									
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• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader®• Windows Live™ Toolbar• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)																																									

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
	M58e	7298-F8U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Educ Apr 09
	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
• These models have a 3-year limited warranty ¹														
Positioning	Essential business features, exceptional value									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 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													
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket													
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													
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 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	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 system ²⁰				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)• 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						
- 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 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 NVIDIA® Quadro® 256MB NVS 290 43R1765 More accessories on O-M58E sheet										
Preloaded applications ⁵ (only some listed)				Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories										
• Some: Education software														
- VitalSource Library School Edition														
- Adobe® Elements														
- Photoshop Elements 7														
- Premiere Elements 7														
• Rescue and Recovery™														
• McAfee® VirusScan® Plus (30-day)														
• Microsoft® Office 2007 Trial (60-day)														
• Roxio® Creator® Business Edition (DVD±RW)														
• Roxio MyDVD® (DVD±RW)														
• Corel® WinDVD® (DVD, DVD±RW)														

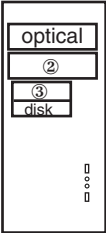
See footnotes for important warranty information

US models announced March 10 or March 24, 2009

⚡ US models withdrawn effective 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 warranty¹

Positioning Processor	Essential business features, exceptional value 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									Tower <ul style="list-style-type: none">Business black color; metal case6.9" W X 17.3" D X 15.8" H175mm W X 440mm D X 402mm H24.7 lb (11.2 kg) in max configurationHandle on top frontToolless cover removalToolless disk, diskette drive, optical drive removalToolless adapter retention 					
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket														
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									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 [1GB models], 1GB [2GB 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	160GB or 250GB , 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 passwordAdministrator passwordHard disk passwordBoot sequence controlBoot without keyboard, mouse, disketteSerial port I/O controlParallel port I/O controlUSB 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														
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, manual switch														

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>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>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	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	NVIDIA® Quadro® 256MB NVS 290	43R1765	GREENGUARD® certified RoHS-compliant
1GB PC2-6400 DDR2 UDIMM	41U2977																							
2GB PC2-6400 DDR2 UDIMM	41U2978																							
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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																							
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ADD2 DVI-D Monitor Connection (HDCP)	43R1985																							
NVIDIA® Quadro® 256MB NVS 290	43R1765																							
Preloaded applications⁵ <ul style="list-style-type: none"><i>Some:</i> Education software<ul style="list-style-type: none">VitalSource Library School EditionAdobe® Elements<ul style="list-style-type: none">Photoshop Elements 7Premiere Elements 7Rescue and Recovery™Client Security Solution™ThinkVantage Productivity CenterThinkVantage System UpdateMcAfee® VirusScan® Plus (30 days of virus definitions)Lenovo System ToolboxAdobe Reader®Windows Live™ ToolbarMicrosoft® 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																						

See footnotes for important warranty information

US models announced July 7, 2009

⚡ US models withdrawn effective December 2009

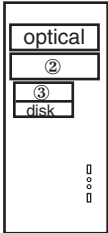
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(MIAM2-3) July 2009

ThinkCentre® M58e Tower (7298) - XP with Win 7 License

Personal Systems Reference (PSREF)

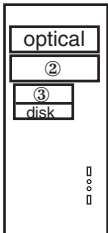
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Global Educ	Avail date
M58e	7298-N1U	4x4	Pentium E6300	2.80	2MB	2	1GB	250GB ²	None	DVD	GMA	XP Pro		Oct 09
M58e	7298-N2U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro		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	Essential business features, exceptional value 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 																							
Implementation	Processor in LGA775 socket																									
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 [1GB models], 1GB [2GB models]), 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 , 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), 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 system ²⁰ <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)																										
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>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>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	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	NVIDIA® Quadro® 256MB NVS 290	43R1765		
1GB PC2-6400 DDR2 UDIMM	41U2977																									
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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																									
NVIDIA® Quadro® 256MB NVS 290	43R1765																									
			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																							
			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">• 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																							

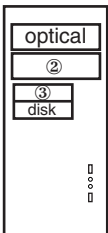
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7298-Q1U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB ²	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7298-Q2U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	None	DVD±RW	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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Essential business features, exceptional value 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)								
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								
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, manual switch								
Preloaded operating system²⁰				Accessories			GREENGUARD® certified RoHS-compliant		
- 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 2011 (30 days of virus definitions)				ADD2 DVI-D Monitor Connection (HDCP)			43R1985		
• Adobe® Reader®				NVIDIA® Quadro® 256MB NVS 290			43R1765		
• Adobe Flash® Player				More accessories on O-M58E sheet					
• Skype™ for Windows				Acc Guide in pdf lenovo.com/accessoriesguide					
• Microsoft Office 2010 preloaded; purchase product key to activate				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		
• Roxio® Creator® Business Edition (DVD±RW)									
• Roxio MyDVD® (DVD±RW)									

ThinkCentre® M58e Tower (7847) - ES 5.0 (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	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 warranty¹															
Positioning Processor	Essential business features, exceptional value 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										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														
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												Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant		
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				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							
				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)															

See footnotes for important warranty information

US models announced October 22, 2009

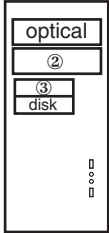
➤ US model withdrawn effective April 2010

© Lenovo

(MIAM3-5) October 2009

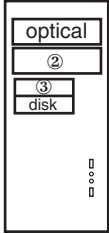
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Vista logo	Global (G) GMP (P)	Avail date
M58e	7307-A1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB ²	None	DVD±RW	GMA	Business32	Basic	G P	Apr 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Essential business features, exceptional value 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																						
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)																						
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 - Genuine Windows® Vista® Business 32																							
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 2010 preloaded; purchase product key to activate• 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>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	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	NVIDIA® Quadro® 256MB NVS 290	43R1765
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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	L2 cache	Cores	Memory ⁶	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 5.0	Win7 preload	Global (G) GMP (P)	Avail date
M58e	7843-A1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB ²	None	DVD±RW	GMA	ES50	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
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Essential business features, exceptional value 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• 24.7 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	2GB std , 4GB max ⁶ , 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																											
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SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																											
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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 <ul style="list-style-type: none">- 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)																												
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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">• 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 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

More information at

www.lenovo.com/support/desktopmemorycompatibility

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

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 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
NVIDIA® Quadro® 256MB NVS 290		
(2-DVI or 2-VGA via DMS59 dongles)	43R1765	ann 12/18/07
NVIDIA GeForce® 512MB 310		
(2-DVI or 2-VGA via DMS59 dongles)	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
NVIDIA Quadro 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA GeForce 512MB 310	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 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 ⁶⁰	57Y4488	ann 01/07/10
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⁶⁰ Has a 1.2 meter (3.9-foot) cable. Best when systems are in close proximity. Example: SFF placed on a desk.

Security

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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 L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
ThinkCentre Extend Arm	57Y4352	ann 07/06/10

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

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 ²	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	Mainstream enterprise stability and manageability 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			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk	
Memory	2GB std , 8GB max®, 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			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 (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 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)				
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			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">- 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 <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-M58 sheetAcc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories					

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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mainstream enterprise stability and manageability 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>																				
Implementation	Processor in LGA775 socket																						
Memory	2GB std , 8GB 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 <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																						
Diskette drive	None		Supports ThinkVantage® technologies 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																				
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 <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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (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><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>		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	
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-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 ^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		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 Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket										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 , 8GB 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												Supports ThinkVantage® technologies				
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												EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant				
Preloaded operating system²⁰							Accessories											
- <i>Some</i> : Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)							500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990											
- <i>Some</i> : Genuine Windows Vista Business 32							1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918											
✧ <i>Vista models</i> : Vista Premium logo							DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618											
Preloaded applications⁵ (all OSes)							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							Lenovo Vertical PC and Monitor Stand II 41R4474											
• ThinkVantage System Update							ThinkCentre Ultra Small Under Desk Mount 40Y8625											
• ThinkVantage Power Manager (Vista)							More accessories on O-M58 sheet											
• McAfee® VirusScan® Plus (30 days of virus definitions)							Acc Guide in pdf lenovo.com/accessoriesguide											
• Lenovo System Toolbox							Other accessories at lenovo.com/accessories											
• 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																		
⇒ 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 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-F7U	1x2	Pentium E5500	2.80	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP		ES50	No	XP Pro	Jun 10
	M58	7359-DUU	1x2	Pentium E6300	2.80	2	2GB	250GB	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	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5500 with dual-core, Virtualization Technology, 800MHz system bus, and 2MB L2 cache or 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>
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		
Memory	2GB std , 8GB 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		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
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		<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>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	<i>Some:</i> 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	<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		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			
Preloaded applications⁵ (only some listed)		Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
• <i>Some:</i> Education software		Lenovo Vertical PC and Monitor Stand II 41R4474			
- VitalSource™ Library School Edition		ThinkCentre Ultra Small Under Desk Mount 40Y8625			
- Adobe® Elements		DisplayPort to Single-link DVI-D Cable 45J7915			
- Photoshop Elements 6		DisplayPort to VGA Monitor Cable 57Y4393			
- Premiere Elements 4		More accessories on O-M58 sheet			
• Rescue and Recovery™		Acc Guide in pdf lenovo.com/accessoriesguide			
• Client Security Solution™		Other accessories at lenovo.com/accessories			
• 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)					

See footnotes for important warranty information

☞ US model announced June 1, 2010; previous models on October 22, 2009

⚡ US model withdrawn effective December 2009

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(MLAN4-1) June 2010

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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Mainstream enterprise stability and manageability</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></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																						
Memory	2GB std , 8GB 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		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	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 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)• 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																						
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		Supports ThinkVantage® technologies																						
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>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>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 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>		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	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		EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
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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ThinkCentre Ultra Small Under Desk Mount	40Y8625																								
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More accessories on O-M58 sheet																									
Acc Guide in pdf lenovo.com/accessoriesguide																									
Other accessories at lenovo.com/accessories																									
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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (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 ^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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

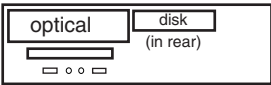
Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache Implementation Processor in LGA775 socket			Eco Ultra Small <div><div>optical</div><div>disk</div><div></div></div>			
Memory	2GB std , 8GB max 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						
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 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• 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 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			
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			
- Genuine Windows® 7 Professional 32				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
Preloaded applications⁵ (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			
• Lenovo Online Data Backup				More accessories on O-M58 sheet			
• Norton™ Internet Security 2011 (30 days of virus definitions)				Acc Guide in pdf lenovo.com/accessoriesguide			
• Adobe® Reader®				Other accessories at lenovo.com/accessories			
• Adobe Flash® Player							
• Microsoft Office 2010 preloaded; purchase product key to activate							
• Roxio® Creator® Business Edition (DVD±RW)							
• Roxio MyDVD® (DVD±RW)							

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	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 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			<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			
Memory	2GB or 4GB std, 16GB 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 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• Some: 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)		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, 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				GREENGUARD® certified RoHS-compliant	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo					
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs		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">• 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 system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional		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 NVIDIA® Quadro® 256MB NVS 290 43R1765 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™• 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 ⁶	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-B4U	2x3	Pentium E5700	3.00	2	2GB	250GB	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Oct 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5400 or E5700 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	<div><div>optical</div><div>disk</div><div>(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 or 4GB std, 16GB 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																		
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		<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 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		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		GREENGUARD® certified RoHS-compliant																		
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), 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">- <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• Lenovo Online Data Backup• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• 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>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>More accessories on O-M58 sheet</td><td></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	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	NVIDIA® Quadro® 256MB NVS 290	43R1765	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																				
DisplayPort to Single-link DVI-D Cable	45J7915																				
DisplayPort to VGA Monitor Cable	57Y4393																				
NVIDIA® Quadro® 256MB NVS 290	43R1765																				
More accessories on O-M58 sheet																					

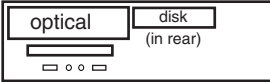
See footnotes for important warranty information

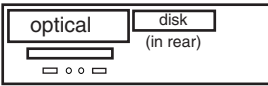
® US model announced September 28, 2010; previous models on January 12 or February 23, 2010


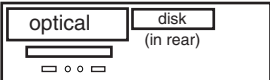
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Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
☞	M58	7360-D8U	2x3	Pentium E5300	2.60	2	1GB	160GB ²	DVD	GMA	VGA, DP	DP-to-DVI-D	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 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 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 * used in some models		
Memory	1GB or 2GB std, 16GB 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	<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				
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		
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	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			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)			NVIDIA® Quadro® 256MB NVS 290 43R1765		
• Rescue and Recovery™			More accessories on O-M58 sheet		
• Client Security Solution™			Acc Guide in pdf lenovo.com/accessoriesguide		
• ThinkVantage Productivity Center			Other accessories at lenovo.com/accessories		
• ThinkVantage Power Manager (Vista)					
• McAfee® VirusScan® Plus (30-day)					
• Roxio® Creator® Business Edition (DVD±RW)					
• Roxio MyDVD® (DVD±RW)					
• Corel® WinDVD® (DVD, DVD±RW)					

	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	
ES	M58	7360-EQU	2x3	Pentium E5500	2.80	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP		None	XP Pro		Jun 10	
	M58	7360-EFU	2x3	Pentium E6300	2.80	2	1GB	250GB	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-EPU	2x3	Core 2 Duo E7600	3.06	2	2GB	250GB	DVD±RW	GMA	VGA, DP		None	XP Pro		Jun 10	
ES	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 Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5500 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 E7600 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q8400 with quad-core, 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) Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3						
Memory	1GB or 2GB std, 16GB 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										* used in some models <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	<i>Some:</i> 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 <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	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	<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)																
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										GREENGUARD® certified RoHS-compliant						
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 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						
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													
• Preloaded applications ⁵ (only some listed)				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990													
				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918													
• <i>Some:</i> Education software				DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618													
				Super Multi-Burner DL DVD±RW SATA Drive 41N5620													
- VitalSource™ Library School Edition				DisplayPort to Single-link DVI-D Cable 45J7915													
				DisplayPort to VGA Monitor Cable 57Y4393													
- Adobe® Elements				NVIDIA® Quadro® 256MB NVS 290 43R1765													
				More accessories on O-M58 sheet													
- Photoshop Elements 6				Acc Guide in pdf lenovo.com/accessoriesguide													
				Other accessories at lenovo.com/accessories													
- Premiere Elements 4																	
• Rescue and Recovery™																	
• Client Security Solution™																	
• ThinkVantage Productivity Center																	
• ThinkVantage System Update																	
• McAfee® VirusScan® Plus (30-day)																	
• 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	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date				
	M58	7360-EUU	2x3	Pentium E5700	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP		None	Pro 32	None	Oct 10			
	M58	7360-EHU	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	Pro 32	None	Jan 10			
<ul style="list-style-type: none">• These models have a 3-year limited warranty¹• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																			
Positioning	Processor										Small								
Implementation	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5700 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																		
Memory	2GB std, 16GB 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								
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 <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																			
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										NVIDIA® Quadro® 256MB NVS 290 43R1765									
• Lenovo Online Data Backup										More accessories on O-M58 sheet									
• Norton™ Internet Security 2011 (30 days of virus definitions)										Acc Guide in pdf lenovo.com/accessoriesguide									
• Adobe® Reader®										Other accessories at lenovo.com/accessories									
• Adobe Flash® Player																			
• Microsoft Office 2010 preloaded; purchase product key to activate																			
• Roxio® Creator® Business Edition (DVD±RW)																			
• 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									

See footnotes for important warranty information

ES US model announced September 14, 2010; previous model on December 15, 2009

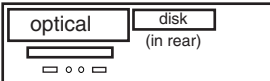
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(MLAN4-18) October 2010

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(MLAN2-6) April 2009

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	
M58	6258-B1U	2x3	Pentium E6300	2.80	2	1GB	250GB ²	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	No	Oct 09
M58	6258-AWU	2x3	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	No	Oct 09
M58	6258-AVU	2x3	Core 2 Quad Q8400	2.66	4	2GB	250GB	DVD±RW	GMA	VGA, DP		ES50	No	XP Pro	No	Oct 09

• *These models have a 3-year limited warranty¹*

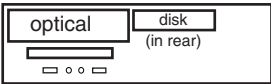
Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E6300 with dual-core , Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or Intel Core™ 2 Quad Processor Q8400 with quad-core , Virtualization Technology, 1333MHz system bus, and 4MB L2 cache			Small 
Implementation	Processor in LGA775 socket			
Memory	1GB or 2GB std , 16GB 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 512MB [<i>1GB models</i>], 1GB [<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	Some: DisplayPort to Single-link DVI-D Cable			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 Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant
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 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, 85% PSU			
Preloaded operating system²⁰		Accessories		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional		1GB PC3-8500 DDR3 UDIMM	45J5434	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">• 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
Preloaded applications⁵ (only some listed)		2GB PC3-8500 DDR3 UDIMM	45J5435	
• Rescue and Recovery™		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
• Client Security Solution™		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• ThinkVantage Productivity Center		DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	
• ThinkVantage System Update		Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
• McAfee® VirusScan® Plus (30 days of virus definitions)		DisplayPort to Single-link DVI-D Cable	45J7915	
• Lenovo System Toolbox		DisplayPort to VGA Monitor Cable	57Y4393	
• Adobe® Reader®		NVIDIA® Quadro® 256MB NVS 290	43R1765	
• 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)				

ThinkCentre® M58 Small (6258) - ES 5.0 (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	ENERGY STAR 5.0	Intel vPro	Win 7 preload	Global Educ	Avail date
ES	M58	6258-D9U	2x3	Pentium E5700	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	ES50	None	Pro 32	None	Oct 10
	M58	6258-D7U	2x3	Core 2 Duo E7600	3.06	2	1GB	160GB	DVD±RW	GMA	VGA, DP	None	ES50	None	Pro 32	None	Jun 10
ES	M58	6258-DBU	2x3	Core 2 Duo E7600	3.06	2	2GB	250GB	DVD±RW	GMA	VGA, DP	None	ES50	None	Pro 32	None	Oct 10

- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5700 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7600 with dual-core, Virtualization Technology, 1066MHz system bus, and 3MB 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)
Implementation					Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3
Memory	1GB or 2GB std, 16GB 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			<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 512MB [<i>1GB models</i>], 765MB [<i>2GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display				
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				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			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 Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
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, 85% PSU				
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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)		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		
		NVIDIA® Quadro® 256MB NVS 290	43R1765		
		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

ES US models announced September 14, 2010; previous model on June 1, 2010

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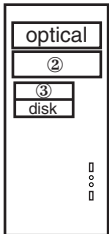
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58	7638-A2U	2x3	Core 2 Duo E7500	2.93	2	1GB	160GB ²	DVD	GMA	VGA, DP	None	None	Bus32	G P	Aug 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache			Small <div><div>optical</div><div>disk (in rear)</div></div>			
Implementation	Processor in FC-LGA8 package in LGA775 socket						
Memory	1GB std , 16GB 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 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			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						
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						
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				Accessories			
- Genuine Windows® Vista® Business 32				1GB PC3-8500 DDR3 UDIMM 45J5434			
✧ Vista Premium logo				2GB PC3-8500 DDR3 UDIMM 45J5435			
Preloaded applications⁵				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				DisplayPort to Single-link DVI-D Cable 45J7915			
• ThinkVantage System Update				DisplayPort to VGA Monitor Cable 57Y4393			
• ThinkVantage Power Manager				NVIDIA® Quadro® 256MB NVS 290 43R1765			
• McAfee® VirusScan® Plus				More accessories on O-M58 sheet			
(30 days of virus definitions)				Acc Guide in pdf lenovo.com/accessoriesguide			
• Lenovo System Toolbox				Other accessories at lenovo.com/accessories			
• Adobe® Reader®							
• Microsoft Office 2010 preloaded; purchase product key to activate							
• Corel® WinDVD® (DVD)							
				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			
				• 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	Mainstream enterprise stability and manageability 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 																									
Implementation																													
Memory	2GB or 4GB std. , 16GB 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			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, manual switch, two diagnostic LEDs																												
Preloaded operating system ²⁰ <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">• 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>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	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	
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																												
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																													
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 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 model announced February 23, 2010; previous models on November 3, 2009

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(MLAN4-12) March 2010

Personal Systems Reference (PSREF)

- *These small and medium business (SMB) models are part of the US TopSeller™ Program*
- *These models have a 3-year limited warranty¹*
- *These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)*

See footnotes for important warranty information © Lenovo
US models announced February 23, 2010; previous model on January 12, 2010 (MLAN4-25) March 2010

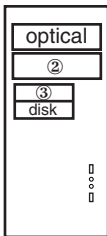
- ***These models have a 3-year limited warranty¹***

See footnotes for important warranty information
US models announced January 20 or April 7, 2009
%X 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)

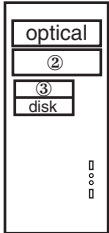
	Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date							
Pentium	M58	7373-F9U	4x4	Pentium E5500	2.80	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP		None	XP Pro		Jun 10							
	M58	7373-E5U	4x4	Pentium E6300	2.80	2	1GB	250GB	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							
Core	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-FBU	4x4	Core 2 Duo E7600	3.06	2	2GB	250GB	DVD±RW	GMA	VGA, DP		None	XP Pro		Jun 10							
	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	Mainstream enterprise stability and manageability										Tower												
Processor	Intel® Pentium® Processor E5500 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 E7600 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q8400 with quad-core, 1333MHz system bus, and 4MB L2 cache										• 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	1GB or 2GB std, 16GB 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										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	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										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												
DP dongle	Some: DisplayPort to Single-link DVI-D Cable																						
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)• 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	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)										Supports ThinkVantage® technologies												
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										GREENGUARD® certified RoHS-compliant												
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 via 800-426-7378												
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 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 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 NVIDIA® Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB NVS 295 45K1669 More accessories on O-M58 sheet																					
Preloaded applications ⁵ (only some listed)		Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories																					
• Some: 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-day)																							
• 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 June 1, 2010; previous models on October 22, 2009

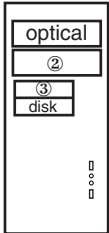
✂ US model withdrawn effective December 2009

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(MLAN4-4) June 2010

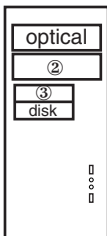
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
M58	7373-EGU	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	Pro 32	None	Jan 10
<ul style="list-style-type: none">• This model has a 3-year limited warranty¹• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
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• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention					
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, 16GB 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), 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 system²⁰						Accessories									
- Genuine Windows® 7 Professional 32						1GB PC3-8500 DDR3 UDIMM						45J5434			
Preloaded applications⁵						2GB PC3-8500 DDR3 UDIMM						45J5435			
• 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						Blu-ray™ Burner SATA 1.5Gb/s Drive						45K1675			
• ThinkVantage Toolbox						DisplayPort to Single-link DVI-D Cable						45J7915			
• Lenovo Online Data Backup						DisplayPort to VGA Monitor Cable						57Y4393			
• Norton™ Internet Security 2011						NVIDIA® Quadro® 256MB NVS 290						43R1765			
(30 days of virus definitions)						NVIDIA Quadro 256MB NVS 295						45K1669			
• Adobe® Reader®						More accessories on O-M58 sheet									
• Adobe Flash® Player						Acc Guide in pdf lenovo.com/accessoriesguide									
• Microsoft Office 2010 preloaded; purchase product key to activate						Other accessories at lenovo.com/accessories									
• Roxio® Creator® Business Edition (DVD±RW)															
• Roxio MyDVD® (DVD±RW)															
												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			
												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			
												Supports ThinkVantage® technologies			
												GREENGUARD® certified RoHS-compliant			

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	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	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			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 , 16GB 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	<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			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																															
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			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, 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)			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			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	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 <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>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	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	
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																															
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																																

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

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
<ul style="list-style-type: none">• This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E7500 with dual-core, 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>④</div></div>					
Implementation	Processor in LGA775 socket														
Memory	2GB std , 16GB 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														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1									Bay ① 5.25", 1.6" high, access, std optical			std optical		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive									Bay ② 5.25", 1.6" high, access, open			open		
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar									Bay ③ 3.5", 1" high, access, open (reader/diskette)			open (reader/diskette)		
eSATA port	None									Bay ④ 3.5", 1" high, no access, std disk			std disk		
Diskette drive	None									Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)			PCIe 2.0 x16 (75w max)		
Media reader	None									Slot 2: half-length, full-height, PCIe x1			PCIe x1		
										Slot 3: half-length, full-height, 32-bit PCI 2.3			32-bit PCI 2.3		
										Slot 4: half-length, full-height, 32-bit PCI 2.3			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)														
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						Accessories									
- Genuine Windows® 7 Professional 32						1GB PC3-8500 DDR3 UDIMM 45J5434									
Preloaded applications⁵ (only some listed)						2GB PC3-8500 DDR3 UDIMM 45J5435									
• 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						Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675									
• ThinkVantage Toolbox						DisplayPort to Single-link DVI-D Cable 45J7915									
• Lenovo Online Data Backup						DisplayPort to VGA Monitor Cable 57Y4393									
• Norton™ Internet Security 2011						NVIDIA® Quadro® 256MB NVS 290 43R1765									
(30 days of virus definitions)						NVIDIA Quadro 256MB NVS 295 45K1669									
• Adobe® Reader®						More accessories on O-M58 sheet									
• Adobe Flash® Player						Acc Guide in pdf lenovo.com/accessoriesguide									
• Microsoft Office 2010 preloaded; purchase product key to activate						Other accessories at lenovo.com/accessories									
• Roxio® Creator® Business Edition (DVD±RW)															
• Roxio MyDVD® (DVD±RW)															
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 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	Mainstream enterprise stability and manageability 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 , 8GB 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 (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) - 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)		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		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			
• 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)					

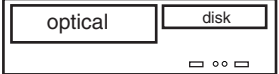
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
M58p	9961-ALU	1x2	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Pro 32	No	Jan 10

- **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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 Processor in LGA775 socket		Eco Ultra Small		<div><div>optical</div><div>disk</div></div>
Implementation					
Memory	2GB std , 8GB 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				
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)				
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 via 800-426-7378
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			
- Genuine Windows® 7 Professional 32		500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
Preloaded applications⁵ (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			
• Lenovo Online Data Backup		More accessories on O-M58 sheet			
• Norton™ Internet Security 2011 (30 days of virus definitions)		Acc Guide in pdf lenovo.com/accessoriesguide			
• Adobe® Reader®		Other accessories at lenovo.com/accessories			
• Adobe Flash® Player					
• Microsoft Office 2010 preloaded; purchase product key to activate					
• Roxio® Creator® Business Edition (DVD±RW)					
• Roxio MyDVD® (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	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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream enterprise stability and manageability 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, 8GB 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 case10.8" W X 9.4" D X 3.1" H275mm W X 238mm D X 80mm H9.2 lb (4.2 kg) in maximum configurationHinged toolless cover for easy serviceabilityToolless disk and optical drive removalToolless systemboard retentionSystem 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																		
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 system²⁰ - Genuine Windows® Vista® Business 32 ✧ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">Rescue and Recovery™Client Security Solution™ThinkVantage Productivity CenterThinkVantage System UpdateThinkVantage Power ManagerMcAfee® VirusScan® Plus (30 days of virus definitions)Lenovo System ToolboxAdobe® Reader®Microsoft Office 2010 preloaded; purchase product key to activateRoxio® Creator® Business Edition (DVD±RW)Roxio MyDVD® (DVD±RW)Corel® WinDVD® (DVD, 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>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>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		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	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																		
DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																		
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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																		
		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 securityPower-on passwordAdministrator passwordHard disk password (user and master)Boot sequence controlBoot without diskette, keyboardIndividual USB port disablement																	
		Supports ThinkVantage® technologies																	
		EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant																	
		Limited Warranty¹ <ul style="list-style-type: none">3-year parts and laborInternational 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/warrantyPost warranty maintenance services available24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																	

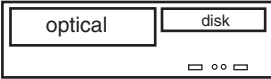
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date
M58p	7479-AJU	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No Apr 09
M58p	7479-AKU	1x2	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No Apr 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 or E8500 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 FC-LGA8 package in LGA775 socket																							
Memory	2GB std , 8GB 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		<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	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) - 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)																							
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	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		Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)																					
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																							
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU		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>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>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>More accessories on O-M58 sheet</td><td></td></tr><tr><td>Acc Guide in pdf lenovo.com/accessoriesguide</td><td></td></tr><tr><td>Other accessories at lenovo.com/accessories</td><td></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	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	
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																							
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More accessories on O-M58 sheet																								
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®• 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 ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	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
M58p	7479-BEU	1x2	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	GMA	VGA, DP		ES50	vPro	Pro 32	None	Oct 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mainstream enterprise stability and manageability 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 LGA775 socket																						
Memory	2GB std , 8GB 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 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 <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 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																						
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 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 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 <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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)												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 <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 September 14, 2010; previous model on December 15, 2009

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(MLAN4-20) October 2010

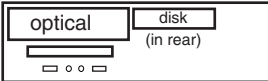
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58p	6136-A1U	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Bus32	G P	Dec 08

- **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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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		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 , 8GB 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)<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• 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)				
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">• 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		
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		
- Genuine Windows® Vista® Business 32			500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
⇧ Vista Premium logo			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			Lenovo Vertical PC and Monitor Stand II 41R4474		
• ThinkVantage System Update			ThinkCentre Ultra Small Under Desk Mount 40Y8625		
• ThinkVantage Power Manager			More accessories on O-M58 sheet		
• McAfee® VirusScan® Plus (30 days of virus definitions)			Acc Guide in pdf lenovo.com/accessoriesguide		
• Lenovo System Toolbox			Other accessories at lenovo.com/accessories		
• Adobe® Reader®					
• Microsoft Office 2010 preloaded; purchase product key to activate					
• Roxio® Creator® Business Edition (DVD±RW)					
• Roxio MyDVD® (DVD±RW)					
• Corel® WinDVD® (DVD±RW)					

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	Mainstream enterprise stability and manageability								Small													
Processor	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																					
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 or 4GB std, 16GB 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													
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								<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 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						
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)				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				NVIDIA® Quadro® 256MB NVS 290				43R1765														
• ThinkVantage System Update				More accessories on O-M58 sheet																		
• McAfee® VirusScan® Plus (30 days of virus definitions)				Acc Guide in pdf lenovo.com/accessoriesguide																		
• Lenovo System Toolbox				Other accessories at lenovo.com/accessories																		
• 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												
										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 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 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>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> <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	2GB or 4GB std, 16GB 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 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										Supports ThinkVantage® technologies				
Diskette drive	None										GREENGUARD® certified RoHS-compliant				
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										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	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	
- <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
Preloaded applications⁵ (only some listed)	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	NVIDIA® Quadro® 256MB NVS 290	43R1765
• Lenovo Online Data Backup	More accessories on O-M58 sheet	
• Norton™ Internet Security 2011 (30 days of virus definitions)	Acc Guide in pdf lenovo.com/accessoriesguide	
• Adobe® Reader®	Other accessories at lenovo.com/accessories	
• Adobe Flash® Player		
• Microsoft Office 2010 preloaded; purchase product key to activate		
• Roxio® Creator® Business Edition (DVD±RW)		
• Roxio MyDVD® (DVD±RW)		

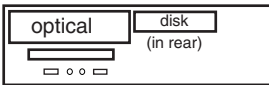
See footnotes for important warranty information

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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																								
Positioning	Mainstream enterprise stability and manageability										Small													
Processor	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 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, 16GB 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										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 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										<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										Security													
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<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• Some: Chassis intrusion switch													
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										Supports ThinkVantage® technologies													
Diskette drive	None																							
Media reader	None										GREENGUARD® certified RoHS-compliant													
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										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													
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® Vista® Business 32			1GB PC3-8500 DDR3 UDIMM															45J5434						
✧ Vista Premium logo			2GB PC3-8500 DDR3 UDIMM															45J5435						
Preloaded applications ⁵ (only some listed)			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								
• Some: Education software			DisplayPort to VGA Monitor Cable													57Y4393								
- VitalSource™ Library School Edition			NVIDIA® Quadro® 256MB NVS 290													43R1765								
- Adobe® Elements			More accessories on O-M58 sheet																					
- Photoshop Elements 6			Acc Guide in pdf lenovo.com/accessoriesguide																					
- Premiere Elements 4			Other accessories at lenovo.com/accessories																					
• Rescue and Recovery™																								
• Microsoft Office 2010 preloaded; purchase product key to activate																								
• 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 21, 2008

⚠ US models withdrawn effective December 2009 or April 2010

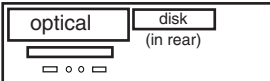
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(MLAN1-4) October 2008

- 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	Intel vPro	Win7 preload	Global Educ	Avail date
☞	M58p	7483-BWU	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP	vPro	Pro 32	None	Oct 10
☞	M58p	7483-BRU	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	Pro 32	None	Jan 10
☞	M58p	7483-BVU	2x3	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	GMA	VGA, DP	vPro	Pro 64	None	Oct 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

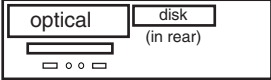
Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		Small 
Implementation			
Memory	2GB std , 16GB max ⁸ , PC3-8500 1066MHz 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 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	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 <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			
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	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	Supports ThinkVantage® technologies
- <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
		DisplayPort to Single-link DVI-D Cable	45J7915
		DisplayPort to VGA Monitor Cable	57Y4393
		NVIDIA® Quadro® 256MB NVS 290	43R1765
		More accessories on O-M58 sheet	
		Acc Guide in pdf lenovo.com/accessoriesguide	
		Other accessories at lenovo.com/accessories	
Preloaded applications⁵ (all OSes; only some listed)			GREENGUARD® certified
• Rescue and Recovery™			RoHS-compliant
• Password Manager			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• ThinkVantage Toolbox			
• Lenovo Online Data Backup			
• Norton™ Internet Security 2011 (30 days of virus definitions)			
• Adobe® Reader®			
• Adobe Flash® Player			
• Microsoft Office 2010 preloaded; purchase product key to activate			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			

ThinkCentre® M58p Small (7220) - ENERGY STAR® 5.0

Personal Systems Reference (PSREF)

	Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^b	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 warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

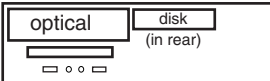
Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache			Small
Implementation	Processor in FC-LGA8 package in LGA775 socket			Bay ① 5.25", 1.6" high, access, 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 * used in some models
Memory	1GB or 2GB std , 16GB 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		• 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	<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			
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 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		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			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		Supports ThinkVantage® technologies Climate Savers®-compliant 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), 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 (30 days of virus definitions)		NVIDIA® Quadro® 256MB NVS 290	43R1765	
• Lenovo System Toolbox		More accessories on O-M58 sheet		
• Adobe® Reader®		Acc Guide in pdf lenovo.com/accessoriesguide		
• Microsoft Office 2010 preloaded; purchase product key to activate		Other accessories at lenovo.com/accessories		
• 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 				

See footnotes for important warranty information
US models announced October 21, 2008
US model withdrawn effective December 2009

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(MLAN1-6) October 2008

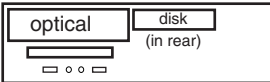
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro Preload	Global Educ	Avail date
M58p	7220-AGU	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ^b	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro XP Pro	No	Apr 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model has a 3-year limited warranty¹**

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 , 16GB 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 DisplayPort to Single-link DVI-D Cable																								
DP dongle	DisplayPort to Single-link DVI-D Cable																								
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 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																						
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		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																						
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																								
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		Supports ThinkVantage® technologies																						
Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business) 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)			Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant																						
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>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</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	NVIDIA® Quadro® 256MB NVS 290	43R1765	More accessories on O-M58 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
1GB PC3-8500 DDR3 UDIMM	45J5434																								
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More accessories on O-M58 sheet																									
Acc Guide in pdf lenovo.com/accessoriesguide																									
Other accessories at lenovo.com/accessories																									

Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	Chassis intr switch	DisplayPort dongle	Intel vPro	Floor stand	Win7 preload	Global Educ	Avail date
7220-B3U	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP		None	vPro	Stand	Pro 32		Oct 10
7220-AVU	2x3	Core 2 Duo E8400	3.00	2	2GB	320GB	DVD±RW	GMA	VGA, DP	Switch	None	vPro		Pro 32	Gbl	Oct 10
7220-B4U	2x3	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	GMA	VGA, DP		None	vPro	Stand	Pro 64		Oct 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mainstream enterprise stability and manageability 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 LGA775 socket																		
Memory	2GB std , 16GB 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 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	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• 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																
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1		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 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		Supports ThinkVantage® technologies																
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)		Climate Savers®-compliant 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), 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		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																
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">- <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• Lenovo Online Data Backup• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• 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>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</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	NVIDIA® Quadro® 256MB NVS 290	43R1765
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DisplayPort to VGA Monitor Cable	57Y4393																		
NVIDIA® Quadro® 256MB NVS 290	43R1765																		

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort	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	
<ul style="list-style-type: none">• 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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																	
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 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 or 3GB std , 16GB 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						
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										<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										<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) - 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</div>						
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				Accessories													
- Genuine Windows® Vista® Business 32				1GB PC3-8500 DDR3 UDIMM										45J5434			
✦ Vista Premium logo				2GB PC3-8500 DDR3 UDIMM										45J5435			
Preloaded applications⁵				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 (30 days of virus definitions)				NVIDIA® Quadro® 256MB NVS 290										43R1765			
• Lenovo System Toolbox				More accessories on O-M58 sheet													
• Adobe® Reader®				Acc Guide in pdf lenovo.com/accessoriesguide													
• Microsoft Office 2010 preloaded; purchase product key to activate				Other accessories at lenovo.com/accessories													
• Roxio® Creator® Business Edition (DVD±RW)																	
• Roxio MyDVD® (DVD±RW)																	
• Corel® WinDVD® (DVD, DVD±RW)																	
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																	
• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)																	
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⇒ Post warranty maintenance services available																	
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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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(MLAN1-7) February 2009

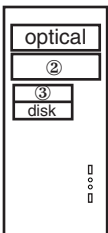
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date													
M58p	6234-A1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Bus32	G 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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)																													
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 <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> <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 FC-LGA8 package in LGA775 socket																												
Memory	2GB std , 16GB 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)• 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• 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																												
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)																												
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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)																												
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Modem	None																												
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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 2010 preloaded; purchase product key to activate• 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>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</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	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	NVIDIA® Quadro® 256MB NVS 290	43R1765
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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	Mainstream enterprise stability and manageability 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 , 16GB 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																				
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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										Limited Warranty¹								
- 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 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 NVIDIA® Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB NVS 295 45K1669 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)			<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 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning	Mainstream enterprise stability and manageability										Tower										
Processor	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										• 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, 16GB 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										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															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					
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)															GREENGUARD® certified RoHS-compliant					
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															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	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			
				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 2011 (30 days of virus definitions)							
• Adobe® Reader®							
• Adobe Flash® Player							
• Microsoft Office 2010 preloaded; purchase product key to activate							
• Roxio® Creator® Business Edition (DVD±RW)							
• Roxio MyDVD® (DVD±RW)							

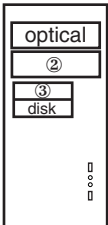
See footnotes for important warranty information

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

	Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort	dongle	Chassis intr switch	Intel vPro	Vista preload	Global Educ	Avail date	
	M58p	7484-A9U	4x4	Core 2 Duo E8400	3.00	2	1GB	160GB ²	DVD	GMA	VGA, DP				vPro	Bus32		Nov 08	
	M58p	7484-AHU	4x4	Core 2 Duo E8400	3.00	2	1GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D			vPro	Bus32		Nov 08	
	M58p	7484-AEU	4x4	Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP				vPro	Bus32		Nov 08	
✖	M58p	7484-AGU	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD	3470	VGA, DP	DP-to-DVI-D			vPro	Bus32		Nov 08	
	M58p	7484-A8U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD±RW	GMA	VGA, DP			Switch	vPro	Bus32		Nov 08	
✖	M58p	7484-AJU	4x4	Core 2 Duo E8500	3.16	2	1GB	160GB	DVD	GMA	VGA, DP				vPro	Bus32		Nov 08	
✖	M58p	7484-AMU	4x4	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP				vPro	Bus32	Educ	Nov 08	
✖	M58p	7484-ALU	4x4	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD	GMA	VGA, DP				vPro	Bus32		Nov 08	
	M58p	7484-AKU	4x4	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD	3470	VGA, DP	DP-to-DVI-D			vPro	Bus32		Nov 08	
✖	M58p	7484-ANU	4x4	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 warranty¹These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																			
Positioning Processor	Mainstream enterprise stability and manageability 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										Tower <ul style="list-style-type: none">Business black color; metal case6.9" W X 17.3" D X 15.8" H175mm W X 440mm D X 402mm H24.2 lb (11.0 kg) in max configurationHandle on top frontToolless cover removalToolless disk, diskette drive, optical drive removalToolless adapter retention								
Implementation	Processor in FC-LGA8 package in LGA775 socket																		
Memory	1GB or 2GB std, 16GB max ^a , 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																		
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																		
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 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	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 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 (only some listed)										1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918									
• Some: Education software										DVD-ROM DL SATA 1.5Gb/s 16-48X 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™										NVIDIA® Quadro® 256MB NVS 290 43R1765									
• Microsoft Office 2010 preloaded; purchase product key to activate										NVIDIA Quadro 256MB NVS 295 45K1669									
• Roxio® Creator® Business Edition (DVD±RW)										More accessories on O-M58 sheet									
• Roxio MyDVD® (DVD±RW)										Acc Guide in pdf lenovo.com/accessoriesguide									
• Corel® WinDVD® (DVD, DVD±RW)										Other accessories at lenovo.com/accessories									
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 passwordAdministrator passwordHard disk password (user and master)Boot sequence controlBoot without diskette, keyboardSerial port I/O controlIndividual USB port disablementSome: 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, 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/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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(MLAN1-12) November 2008

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
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	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• 24.2 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 FC-LGA8 package in LGA775 socket		
Memory	2GB std , 16GB 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		
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			
Preloaded operating system²⁰			
- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)			
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)			
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			
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			
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">• 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 April 7, 2009

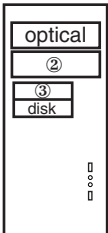
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 (MLAN2-14) April 2009

ThinkCentre® M58p Tower (7484) - Windows 7

Personal Systems Reference (PSREF)

	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
ES	M58p	7484-E1U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP		vPro	Pro 32	None	Oct 10
	M58p	7484-D1U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	Pro 32	None	Jan 10
ES	M58p	7484-D9U	4x4	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	GMA	VGA, DP		vPro	Pro 64	None	Oct 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning	Mainstream enterprise stability and manageability											<div>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>																								
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 LGA775 socket																																			
Memory	2GB std, 16GB 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																																			
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 Some: DisplayPort to Single-link DVI-D Cable																																			
DP dongle	Some: 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)																																			
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 <ul style="list-style-type: none">- Some: Genuine Windows® 7 Professional 32- Some: 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• Lenovo Online Data Backup• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• 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>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	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
1GB PC3-8500 DDR3 UDIMM	45J5434																																			
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DisplayPort to Single-link DVI-D Cable	45J7915																																			
DisplayPort to VGA Monitor Cable	57Y4393																																			
NVIDIA® Quadro® 256MB NVS 290	43R1765																																			
NVIDIA Quadro 256MB NVS 295	45K1669																																			
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																																				

See footnotes for important warranty information

ES US models announced September 14, 2010; previous model on December 15, 2009

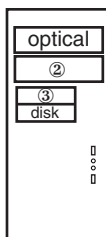
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(MLAN4-22) October 2010

Personal Systems Reference (PSREF)

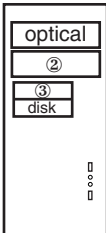
See footnotes for important warranty information
US models announced October 22, 2009
⌘ US model withdrawn effective April 2010

ThinkCentre® M58p Tower (3063) - ES 5.0 (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Monitor conn	Chassis intrn switch	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro preload	Win7 Educ	Global Avail date	
3063-BVU	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB ²	DVD±RW	GMA	VGA, DP		None	ES50	vPro	Pro 32	Oct 10	
3063-BSU	4x4	Core 2 Duo E8400	3.00	2	2GB	320GB	DVD±RW	GMA	VGA, DP	Switch	None	ES50	vPro	Pro 32	Oct 10	
<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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																
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• 24.2 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 , 16GB 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 (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															
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, autosensing, 85% PSU															
Preloaded operating system²⁰			Accessories													
- Genuine Windows® 7 Professional 32			1GB PC3-8500 DDR3 UDIMM			45J5434										
			2GB PC3-8500 DDR3 UDIMM			45J5435										
Preloaded applications⁵ (only some listed)			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			Blu-ray™ Burner SATA 1.5Gb/s Drive			45K1675										
• ThinkVantage Power Manager			DisplayPort to Single-link DVI-D Cable			45J7915										
• ThinkVantage Toolbox			DisplayPort to VGA Monitor Cable			57Y4393										
• Lenovo Online Data Backup			NVIDIA® Quadro® 256MB NVS 290			43R1765										
• Norton™ Internet Security 2011 (30 days of virus definitions)			NVIDIA Quadro 256MB NVS 295			45K1669										
• Adobe® Reader®																
• Adobe Flash® Player			Acc Guide in pdf lenovo.com/accessoriesguide													
• Microsoft Office 2010 preloaded; purchase product key to activate			Other accessories at lenovo.com/accessories													
• Roxio® Creator® Business Edition (DVD±RW)																
• Roxio MyDVD® (DVD±RW)																
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)																
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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																				
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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)																																			
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• 24.2 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> <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, 16GB 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																																		
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									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																									
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Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)									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>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	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	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB NVS 295	45K1669
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NVIDIA® Quadro® 256MB NVS 290	43R1765																																		
NVIDIA Quadro 256MB NVS 295	45K1669																																		
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)																																		
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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																																			
- Genuine Windows® Vista® Business 32																																			
✦ Vista Premium logo																																			
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®																																			
• Microsoft Office 2010 preloaded; purchase product key to activate																																			
• 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	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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)																					
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• 24.2 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 , 16GB 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 (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																				
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							Accessories					Supports ThinkVantage® technologies									
- Genuine Windows® 7 Professional 32							1GB PC3-8500 DDR3 UDIMM										45J5434				
Preloaded applications⁵ (only some listed)							2GB PC3-8500 DDR3 UDIMM										45J5435				
• 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							Blu-ray™ Burner SATA 1.5Gb/s Drive										45K1675				
• ThinkVantage Toolbox							DisplayPort to Single-link DVI-D Cable										45J7915				
• Lenovo Online Data Backup							DisplayPort to VGA Monitor Cable										57Y4393				
• Norton™ Internet Security 2011							NVIDIA® Quadro® 256MB NVS 290										43R1765				
(30 days of virus definitions)							NVIDIA Quadro 256MB NVS 295										45K1669				
• Adobe® Reader®							More accessories on O-M58 sheet														
• Adobe Flash® Player							Acc Guide in pdf lenovo.com/accessoriesguide														
• Microsoft Office 2010 preloaded;							Other accessories at lenovo.com/accessories														
purchase product key to activate																					
• Roxio® Creator® Business Edition																					
(DVD±RW)																					
• Roxio MyDVD® (DVD±RW)																					
												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									
												• 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 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

More information at

www.lenovo.com/support/desktopmemorycompatibility

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

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 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
NVIDIA® Quadro® 256MB NVS 290 (2-DVI or 2-VGA via DMS59 dongles)	43R1765	ann 12/18/07
NVIDIA GeForce® 512MB 310 (2-DVI or 2-VGA via DMS59 dongles)	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
NVIDIA Quadro 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB NVS 295 (2-DP)	45K1669	ann 04/21/09
NVIDIA GeForce 512MB 310	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
Ultralim 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 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 Headphones⁶⁰ 57Y4488 ann 01/07/10
⁶⁰ Has a 1.2 meter (3.9-foot) cable. Best when systems are in close proximity. Example: SFF placed on a desk.

Security

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
ThinkCentre Extend Arm	57Y4352	ann 07/06/10

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

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 M70e Small and
Lenovo ThinkCentre M70e Tower



Lenovo ThinkCentre M70e Tower
with Lenovo ThinkVision monitor



Lenovo ThinkCentre M70e Small
with optional PS/2 keyboard and mouse ports



Lenovo ThinkCentre M70e Small
with Lenovo ThinkVision monitor



Lenovo ThinkCentre M70e Tower
with optional PS/2 keyboard and mouse ports



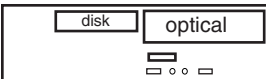
Lenovo ThinkCentre M70e Tower

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
0809-C5U	4x3	Pentium E5500	2.80	2MB	2	2GB	320GB ²	DVD±RW	GMA	Pro 32	None	Aug 10
0809-B3U	4x3	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	DVD±RW	GMA	Pro 32	None	Aug 10
0809-C6U	4x3	Core 2 Duo E8400	3.00	6MB	2	4GB	500GB	DVD±RW	GMA	Pro 64	None	Aug 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Essential business features, exceptional value</i> Intel® Pentium® Processor E5500 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 Duo Processor E8400 with dual-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		Small <div><div>disk</div><div>optical</div><div><div></div><div></div><div></div><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 Bay ③ 1.5", .35" high, access, opt reader* * bay only available on models with media reader installed																						
Memory	2GB, 3GB, or 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 avail; <i>Non-italics:</i> standard memory in one socket; one socket available		Slot 1: Low Profile, PCI Express x16 (40w max) Slot 2: Low Profile, PCI Express x1 Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3																						
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB [2GB models], 1277MB [3GB models], or 1759MB [4GB 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• 13.2" W X 15.0" D X 3.9" H• 335mm W X 382mm D X 99mm H• 14.5 lb (6.6 kg) in maximum configuration• Highlighted optical drive button for easy access• System floor stand for vertical orientation																						
SATA disk	320GB or 500GB , SATA 3.0Gb/s 7200 rpm, vibration dampening		<div>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• Serial port I/O control• USB port disablement</div>																						
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), three SATA connectors on planar																								
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)																								
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		<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	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	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		<div>Preloaded operating system²⁰<ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® 7 Professional 32- <i>Some:</i> Genuine Windows 7 Professional 64Preloaded 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)</div>																						
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																								
Power supply	240 watts, autosensing, active Power Factor Correction																								
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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (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>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>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>NVIDIA® GeForce® 310 512MB (DP, VGA)</td><td>57Y4397</td></tr><tr><td>NVIDIA Quadro® 512MB FX 380 LP (DP,DVI)</td><td>57Y4396</td></tr><tr><td colspan="2">More accessories on O-M70E 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	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort™ to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397	NVIDIA Quadro® 512MB FX 380 LP (DP,DVI)	57Y4396	More accessories on O-M70E 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																								
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																								
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More accessories on O-M70E sheet																									
Acc Guide in pdf lenovo.com/accessoriesguide																									
Other accessories at lenovo.com/accessories																									

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date	
0822-B6U	4x3	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB ²	DVD±RW	GMA	Pro 32	None	Aug 10	
<ul style="list-style-type: none">• This model has a 1-year limited warranty¹• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)													
Positioning Processor	Essential business features, exceptional value Intel® Core™ 2 Duo Processor E8400 with dual-core , 1333MHz system bus, and 6MB L2 cache Implementation Processor in LGA775 socket							Small <div><div>disk</div><div>optical</div></div>					
Memory	2GB std , 4GB max ^a , PC3-8500 1066MHz DDR3 , 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 1.5", .35" high, access, opt reader* * bay only available on models with media reader installed				
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: Low Profile, PCI Express x16 (40w max) Slot 2: Low Profile, PCI Express x1 Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3				
SATA disk	250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts								<ul style="list-style-type: none">• Business black color; metal case• 13.2" W X 15.0" D X 3.9" H• 335mm W X 382mm D X 99mm H• 14.5 lb (6.6 kg) in maximum configuration• Highlighted optical drive button for easy access• 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), three 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)							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• Serial 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), 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							Supports ThinkVantage® technologies					
Power supply	240 watts, autosensing, active Power Factor Correction							GREENGUARD® certified RoHS-compliant					
Preloaded operating system²⁰				Accessories									
- Genuine Windows® 7 Professional 32				1GB PC3-8500 DDR3 UDIMM					45J5434				
Preloaded applications⁵ (only some listed)				2GB PC3-8500 DDR3 UDIMM					45J5435				
• 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				ADD2 DVI-D Monitor Connection (HDCP)					43R1985				
• ThinkVantage Toolbox				NVIDIA® GeForce® 310 512MB (DP, VGA)					57Y4397				
• Norton™ Internet Security 2011 (30 days of virus definitions)				NVIDIA Quadro® 512MB FX 380 LP (DP,DVI)					57Y4396				
• Adobe® Reader®				More accessories on O-M70E sheet									
• Adobe Flash® Player				Acc Guide in pdf lenovo.com/accessoriesguide									
• Skype™ for Windows				Other accessories at lenovo.com/accessories									
• Microsoft Office 2010 preloaded; purchase product key to activate													
• Corel® Burn.Now™ (DVD±RW)													
• Corel DVD MovieFactory® (DVD±RW)													
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													

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date																																																																																																																																																																																																			
0830-H8U	4x3	Pentium E5500	2.80	2MB	2	1GB	250GB ²	DVD	GMA	Pro 32	None	Aug 10																																																																																																																																																																																																			
0830-H9U	4x3	Pentium E5500	2.80	2MB	2	2GB	320GB	DVD±RW	GMA	Pro 32	None	Aug 10																																																																																																																																																																																																			
0830-F2U	4x3	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Aug 10																																																																																																																																																																																																			
0830-F4U	4x3	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Aug 10																																																																																																																																																																																																			
0830-K1U	4x3	Core 2 Duo E8400	3.00	6MB	2	3GB	320GB	DVD±RW	GMA	Pro 32	None	Aug 10																																																																																																																																																																																																			
0830-K7U	4x3	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Aug 10																																																																																																																																																																																																			
0830-K2U	4x3	Core 2 Duo E8500	3.16	6MB	2	3GB	320GB	DVD±RW	GMA	Pro 32	None	Aug 10																																																																																																																																																																																																			
0830-K3U	4x3	Core 2 Quad Q9500	2.83	6MB	4	4GB	320GB	DVD±RW	GMA	Pro 32	None	Aug 10																																																																																																																																																																																																			
<ul style="list-style-type: none">• These models have a 3-year limited warranty¹• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																																																																																																																																																																																																															
Positioning Processor	<i>Essential business features, exceptional value</i> Intel® Pentium® Processor E5500 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 Duo Processor E8400 or E8500 with dual-core, 1333MHz system bus, and 6MB 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 1.5", .35" high, access, opt reader* * bay only available on models with media reader installed																																																																																																																																																																																																							
Memory	1GB, 2GB, 3GB, or 4GB std, 4GB max^a, PC3-8500 1066MHz DDR3 , 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 (40w max) Slot 2: Low Profile, PCI Express x1 Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 13.2" W X 15.0" D X 3.9" H• 335mm W X 382mm D X 99mm H• 14.5 lb (6.6 kg) in maximum configuration• Highlighted optical drive button for easy access• 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], 1277MB [3GB models], or 1759MB [4GB 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• Serial port I/O control• USB port disablement																																																																																																																																																																																																							
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts							<ul style="list-style-type: none">Supports ThinkVantage® technologiesGREENGUARD® certifiedRoHS-compliant																																																																																																																																																																																																							
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 on planar																																																																																																																																																																																																														
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																																																																																																																																																																																																							
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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)																																																																																																																																																																																																														
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<table><tr><td colspan="4">Preloaded operating system²⁰</td><td colspan="9">Accessories</td></tr><tr><td colspan="4">- Genuine Windows® 7 Professional 32</td><td>1GB PC3-8500 DDR3 UDIMM</td><td colspan="8">45J5434</td></tr><tr><td colspan="4">Preloaded applications⁵ (only some listed)</td><td>2GB PC3-8500 DDR3 UDIMM</td><td colspan="8">45J5435</td></tr><tr><td colspan="4">• Rescue and Recovery™</td><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td colspan="8">41N5620</td></tr><tr><td colspan="4">• Password Manager</td><td>DisplayPort™ to Single-link DVI-D Cable</td><td colspan="8">45J7915</td></tr><tr><td colspan="4">• ThinkVantage System Update</td><td>DisplayPort to VGA Monitor Cable</td><td colspan="8">57Y4393</td></tr><tr><td colspan="4">• ThinkVantage Power Manager</td><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td colspan="8">43R1985</td></tr><tr><td colspan="4">• ThinkVantage Toolbox</td><td>NVIDIA® GeForce® 310 512MB (DP, VGA)</td><td colspan="8">57Y4397</td></tr><tr><td colspan="4">• Norton™ Internet Security 2011 (30 days of virus definitions)</td><td>NVIDIA Quadro® 512MB FX 380 LP (DP,DVI)</td><td colspan="8">57Y4396</td></tr><tr><td colspan="4">• Adobe® Reader®</td><td colspan="9">More accessories on O-M70E sheet</td></tr><tr><td colspan="4">• Adobe Flash® Player</td><td colspan="9">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="4">• Skype™ for Windows</td><td colspan="9">Other accessories at lenovo.com/accessories</td></tr><tr><td colspan="4">• Microsoft Office 2010 preloaded; purchase product key to activate</td><td colspan="9"></td></tr><tr><td colspan="4">• Corel® Burn.Now™ (DVD±RW)</td><td colspan="9"></td></tr><tr><td colspan="4">• Corel DVD MovieFactory® (DVD±RW)</td><td colspan="9"></td></tr></table>													Preloaded operating system²⁰				Accessories									- Genuine Windows® 7 Professional 32				1GB PC3-8500 DDR3 UDIMM	45J5434								Preloaded applications⁵ (only some listed)				2GB PC3-8500 DDR3 UDIMM	45J5435								• 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				ADD2 DVI-D Monitor Connection (HDCP)	43R1985								• ThinkVantage Toolbox				NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397								• Norton™ Internet Security 2011 (30 days of virus definitions)				NVIDIA Quadro® 512MB FX 380 LP (DP,DVI)	57Y4396								• Adobe® Reader®				More accessories on O-M70E sheet									• Adobe Flash® Player				Acc Guide in pdf lenovo.com/accessoriesguide									• Skype™ for Windows				Other accessories at lenovo.com/accessories									• Microsoft Office 2010 preloaded; purchase product key to activate													• Corel® Burn.Now™ (DVD±RW)													• Corel DVD MovieFactory® (DVD±RW)												
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Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	ENERGY STAR 5.0	Win7 preload	Global Educ	Avail date
0843-C3U	4x3	Pentium E5500	2.80	2MB	2	2GB	320GB ²	DVD±RW	GMA	ES50	Pro 32	None	Aug 10
0843-C4U	4x3	Core 2 Duo E7500	2.93	3MB	2	2GB	320GB	DVD±RW	GMA	ES50	Pro 32	None	Aug 10
0843-C5U	4x3	Core 2 Duo E8400	3.00	6MB	2	3GB	320GB	DVD±RW	GMA	ES50	Pro 32	None	Aug 10

- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Essential business features, exceptional value</i> Intel® Pentium® Processor E5500 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 Duo Processor E8400 with dual-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		Small <div><div><div>disk</div><div>optical</div></div><div><div></div><div></div><div></div><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 Bay ③ 1.5", .35" high, access, opt reader* * bay only available on models with media reader installed	
Memory	2GB or 3GB 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 avail; <i>Non-italics:</i> standard memory in one socket; one socket available		Slot 1: Low Profile, PCI Express x16 (40w max) Slot 2: Low Profile, PCI Express x1 Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3	
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB [2GB models] or 1277MB [3GB 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• 13.2" W X 15.0" D X 3.9" H• 335mm W X 382mm D X 99mm H• 14.5 lb (6.6 kg) in maximum configuration• Highlighted optical drive button for easy access• System floor stand for vertical orientation	
SATA disk	320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<div><div><div><div>Security</div><div><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• Serial port I/O control• USB port disablement</div></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><div>Limited Warranty¹</div><div><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></div></div></div></div></div>	
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), three 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), 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	240 watts, autosensing, 85% PSU			
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32		Accessories 1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort™ to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 NVIDIA® GeForce® 310 512MB (DP, VGA) 57Y4397 NVIDIA Quadro® 512MB FX 380 LP (DP,DVI) 57Y4396 More accessories on O-M70E 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 • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® Burn.Now™ (DVD±RW) • Corel DVD MovieFactory® (DVD±RW)				

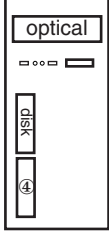
Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Chassis intr switch	Win7 preload	Global (G) GMP (P)	Avail date
0833-B1U	4x3	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB ²	DVD±RW	GMA	Switch	Pro 32	G P	Aug 10

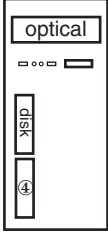
- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Essential business features, exceptional value Intel® Core™ 2 Duo Processor E8400 with dual-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		Small		<div><div>disk</div><div>optical</div><div><div></div><div></div><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 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 1.5", .35" high, access, opt reader*		* bay only available on models with media reader installed
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: Low Profile, PCI Express x16 (40w max) Slot 2: Low Profile, PCI Express x1 Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3		
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), three SATA connectors on planar				<ul style="list-style-type: none">• Business black color; metal case• 13.2" W X 15.0" D X 3.9" H• 335mm W X 382mm D X 99mm H• 14.5 lb (6.6 kg) in maximum configuration• Highlighted optical drive button for easy access• System floor stand for vertical orientation
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">• 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• Serial port I/O control• USB port disablement• Chassis intrusion switch
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	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	240 watts, autosensing, active Power Factor Correction				
Preloaded operating system²⁰		Accessories		Supports ThinkVantage® technologies	
- Genuine Windows® 7 Professional 32		1GB PC3-8500 DDR3 UDIMM 45J5434		GREENGUARD® certified	
Preloaded applications⁵ (only some listed)		2GB PC3-8500 DDR3 UDIMM 45J5435		RoHS-compliant	
• Rescue and Recovery™		Super Multi-Burner DL DVD±RW SATA Drive 41N5620		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	
• Password Manager		DisplayPort™ to Single-link DVI-D Cable 45J7915			
• ThinkVantage System Update		DisplayPort to VGA Monitor Cable 57Y4393			
• ThinkVantage Power Manager		ADD2 DVI-D Monitor Connection (HDCP) 43R1985			
• ThinkVantage Toolbox		NVIDIA® GeForce® 310 512MB (DP, VGA) 57Y4397			
• Norton™ Internet Security 2011 (30 days of virus definitions)		NVIDIA Quadro® 512MB FX 380 LP (DP,DVI) 57Y4396			
• Adobe® Reader®		More accessories on O-M70E sheet			
• Adobe Flash® Player		Acc Guide in pdf lenovo.com/accessoriesguide			
• Skype™ for Windows		Other accessories at lenovo.com/accessories			
• Microsoft Office 2010 preloaded; purchase product key to activate					
• Corel® Burn.Now™ (DVD±RW)					
• Corel DVD MovieFactory® (DVD±RW)					

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
0806-C1U	4x4	Pentium E5500	2.80	2MB	2	2GB	320GB ²	None	DVD±RW	GMA	Pro 32	None	Aug 10
0806-B3U	4x4	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	None	DVD±RW	GMA	Pro 32	None	Aug 10
0806-C5U	4x4	Core 2 Duo E8400	3.00	6MB	2	4GB	500GB	None	DVD±RW	GMA	Pro 64	None	Aug 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

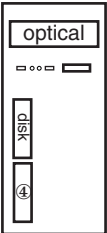
Positioning Processor	Essential business features, exceptional value Intel® Pentium® Processor E5500 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core , 1333MHz system bus, and 6MB L2 cache		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.3" W X 16.6" D X 15.3" H• 160mm W X 422mm D X 388mm H• 20.7 lb (9.4 kg) in max configuration• Handle on top front• Highlighted optical drive button for easy access 																				
Implementation	Processor in LGA775 socket																						
Memory	2GB, 3GB, or 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 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 765MB [2GB models], 1277MB [3GB models], or 1759MB [4GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																						
SATA disk	320GB or 500GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Bay ① 5.25", 1.6" high, access, std optical Bay ② 1.5", .35" high, access, opt reader* Bay ③ 3.5", 1" high, no access, std disk Bay ④ 3.5", 1" high, no access, open * bay only available on models with media reader installed Slot 1: half-length, full-height, PCI Express x16 (60w 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 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), three 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)																						
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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 <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® 7 Professional 32- <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ⁵ (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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (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>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>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>NVIDIA® GeForce® 310 512MB (DP, VGA)</td><td>57Y4397</td></tr><tr><td colspan="2">More accessories on O-M70E 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	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort™ to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397	More accessories on O-M70E sheet		Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
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• ThinkVantage System Update				DisplayPort™ to Single-link DVI-D Cable				45J7915																																																																																																																																																																																																																							
• ThinkVantage Power Manager				DisplayPort to VGA Monitor Cable				57Y4393																																																																																																																																																																																																																							
• ThinkVantage Toolbox				ADD2 DVI-D Monitor Connection (HDCP)				43R1985																																																																																																																																																																																																																							
• Norton™ Internet Security 2011 (30 days of virus definitions)				NVIDIA® GeForce® 310 512MB (DP, VGA)				57Y4397																																																																																																																																																																																																																							
• Adobe® Reader®				More accessories on O-M70E sheet																																																																																																																																																																																																																											
• Adobe Flash® Player				Acc Guide in pdf lenovo.com/accessoriesguide																																																																																																																																																																																																																											
• Skype™ for Windows				Other accessories at lenovo.com/accessories																																																																																																																																																																																																																											
• Microsoft Office 2010 preloaded; purchase product key to activate																																																																																																																																																																																																																															
• Corel® Burn.Now™ (DVD±RW)																																																																																																																																																																																																																															
• Corel DVD MovieFactory® (DVD±RW)																																																																																																																																																																																																																															

See footnotes for important warranty information
 US models announced August 3, 2010

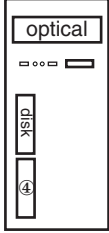
Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 5.0	Win7 preload	Global Educ	Avail date
0842-C1U	4x4	Pentium E5500	2.80	2MB	2	2GB	320GB ²	None	DVD±RW	GMA	ES50	Pro 32	None	Aug 10
0842-C3U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	320GB	None	DVD±RW	GMA	ES50	Pro 32	None	Aug 10
0842-C4U	4x4	Core 2 Duo E8400	3.00	6MB	2	3GB	320GB	None	DVD±RW	GMA	ES50	Pro 32	None	Aug 10

- These models have a 3-year limited warranty¹
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Essential business features, exceptional value</i> Intel® Pentium® Processor E5500 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 Duo Processor E8400 with dual-core , 1333MHz system bus, and 6MB L2 cache						Tower • Business black color; metal case • 6.3" W X 16.6" D X 15.3" H • 160mm W X 422mm D X 388mm H • 20.7 lb (9.4 kg) in max configuration • Handle on top front • Highlighted optical drive button for easy access							
Implementation	Processor in LGA775 socket						Bay ① 5.25", 1.6" high, access, std optical Bay ② 1.5", .35" high, access, opt reader* Bay ③ 3.5", 1" high, no access, std disk Bay ④ 3.5", 1" high, no access, open * bay only available on models with media reader installed						Slot 1: half-length, full-height, PCI Express x16 (60w 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	
Memory	2GB or 3GB 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 avail; <i>Non-italics:</i> standard memory in one socket; one socket available						SATA disk 320GB , 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), three SATA connectors on planar eSATA port None Diskette drive None Media reader None						Security • 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 • Boot sequence control • Boot without keyboard, mouse • Serial port I/O control • USB port disablement	
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB [2GB models] or 1277MB [3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter						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), 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						Limited Warranty ¹ ⇒ 3-year parts and labor ⇒ International Warranty Service® ⇒ 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	
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						Power supply 280 watts with variable speed fan, autosensing, 85% PSU							
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													
Preloaded operating system ²⁰	- Genuine Windows® 7 Professional 32						Accessories 1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort™ to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 NVIDIA® GeForce® 310 512MB (DP, VGA) 57Y4397 More accessories on O-M70E sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories							
Preloaded applications ⁵ (only some listed)	• Rescue and Recovery™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® Burn.Now™ (DVD±RW) • Corel DVD MovieFactory® (DVD±RW)													

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Chassis intr switch	Win7 preload	Global (G) GMP (P)	Avail date
0832-B1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB ²	None	DVD±RW	GMA	Switch	Pro 32	G P	Aug 10

- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Essential business features, exceptional value</i> 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• 6.3" W X 16.6" D X 15.3" H• 160mm W X 422mm D X 388mm H• 20.7 lb (9.4 kg) in max configuration• Handle on top front• Toolless top cover removal• Highlighted optical drive button for easy access 
Implementation			
Memory	2GB std , 4GB max ⁹ , PC3-8500 1066MHz DDR3 , 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		Bay ① 5.25", 1.6" high, access, std optical
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		Bay ② 1.5", .35" high, access, opt reader*
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		Bay ③ 3.5", 1" high, no access, std disk
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors on planar		Bay ④ 3.5", 1" high, no access, open
eSATA port	None		* bay only available on models with media reader installed
Diskette drive	None		Slot 1: half-length,full-height, PCI Express x16 (60w max)
Media reader	None		Slot 2: half-length,full-height, PCI Express x1
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)		Slot 3: half-length,full-height, 32-bit PCI 2.3
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		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• Serial port I/O control• USB port disablement• Chassis intrusion switch
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	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, manual switch		GREENGUARD® certified RoHS-compliant
Preloaded operating system ²⁰		Accessories	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
- Genuine Windows® 7 Professional 32		1GB PC3-8500 DDR3 UDIMM 45J5434	
Preloaded applications ⁵ (only some listed)		2GB PC3-8500 DDR3 UDIMM 45J5435	
• 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		ADD2 DVI-D Monitor Connection (HDCP) 43R1985	
• ThinkVantage Toolbox		NVIDIA® GeForce® 310 512MB (DP, VGA) 57Y4397	
• Norton™ Internet Security 2011 (30 days of virus definitions)		More accessories on O-M70E sheet	
• Adobe® Reader®		Acc Guide in pdf lenovo.com/accessoriesguide	
• Adobe Flash® Player		Other accessories at lenovo.com/accessories	
• Skype™ for Windows			
• Microsoft Office 2010 preloaded; purchase product key to activate			
• Corel® Burn.Now™ (DVD±RW)			
• Corel DVD MovieFactory® (DVD±RW)			

Partial list of accessories supported on ThinkCentre M70e

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

More information at

www.lenovo.com/support/desktopmemorycompatibility

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
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 0809/0822/0830/0833/0843 support Low Profile:

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
NVIDIA® Quadro® 512MB FX 380 LP		
(DP, DVI with a DVI to VGA converter)	57Y4396	ann 02/02/10
NVIDIA GeForce® 310 512MB (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 512MB 310		
(2-DVI or 2-VGA via DMS59 dongles)	57Y4167	ann 03/02/10

Tower 0806/0829/0832/0842 support:

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
NVIDIA GeForce 310 512MB (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 512MB 310	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
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 Optical Mouse (USB)	06P4069	ann 05/21/03
ThinkPad® USB Laser Mouse	57Y4635	ann 12/15/09
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 ⁶⁰	57Y4488	ann 01/07/10
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⁶⁰ Has a 1.2 meter (3.9-foot) cable. Best when systems are in close proximity. Example: SFF placed on a desk.

Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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
Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
ThinkCentre Extend Arm	57Y4352	ann 07/06/10

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

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 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	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>																				
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 , 8GB 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		<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>																				
DP dongle	None																						
SATA disk SATA DVD±RW SATA Controller	250GB , SATA 3.0Gb/s 7200 rpm Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical																						
eSATA port Diskette drive Media reader	None None None																						
Chipset	Intel Q57 Express Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		<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>																				
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 <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><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																						
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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™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo System Toolbox• Norton™ Internet Security 2011 (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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(MELB1-7) 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	
<ul style="list-style-type: none">• 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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
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								Eco Ultra Small						
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 std , 8GB 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														
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									
Preloaded applications⁵ (only some listed) • Rescue and Recovery™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® Burn.Now™ (DVD±RW) • Corel DVD MovieFactory® (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)• Power-on password• Hard disk password• Boot sequence control• Boot without keyboard and mouse• 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									

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
3692-F8U	1x2	Core i3-540	3.06	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Jun 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 or i3-540 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	1GB or 2GB std, 8GB max, PC3-10600 1333MHz DDR3*, two 204-pin SODIMM sockets (notebook); Non-italics: 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 512MB [1GB model], 1GB [2GB models]), 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, SATA 3.0Gb/s 7200 rpm			
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive			
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant	
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		Supports ThinkVantage® technologies	
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)		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	
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		Accessories		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)		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		
		More accessories on O-M90 sheet		
Preloaded applications ⁵ (only some listed)		Acc Guide in pdf lenovo.com/accessoriesguide		
• Rescue and Recovery™		Other accessories at lenovo.com/accessories		
• Client Security Solution™				
• ThinkVantage Productivity Center				
• ThinkVantage System Update				
• ThinkVantage Power Manager				
• Lenovo System Toolbox				
• Norton™ Internet Security 2011 (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)				

See footnotes for important warranty information

US model announced June 1, 2010; previous models on January 15, 2010

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ThinkCentre® M90 Eco Ultra Small (3692) - Windows 7

Personal Systems Reference (PSREF)

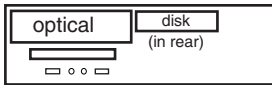
Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3692-A4U	1x2	Core i3-530	2.93	2	2GB	250GB ²	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Feb 10
3692-E7U	1x2	Pentium G6950	2.80	2	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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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																			
Memory	2GB std , 8GB 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			<div>Security</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>Environmental Features</div> <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant <div>Supports ThinkVantage® technologies</div> <div>Limited Warranty¹<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>																			
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 SATA DVD±RW SATA Controller	250GB , SATA 3.0Gb/s 7200 rpm Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical																						
eSATA port Diskette drive Media reader	None None None																						
Chipset	Intel Q57 Express Chipset , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O																						
Front ports Rear ports Rear audio ports Audio Speaker Ethernet Intel AMT Modem Security chip	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm) Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort) Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm) High Definition (HD) Audio, Realtek® ALC662 codec Internal speaker for business audio One gigabit ethernet port, Intel 82578DM, Wake on LAN® None None STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																						
Keyboard Mouse Power supply	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo Optical Wheel Mouse (USB connector), black, Lenovo logo External AC/DC adapter, 130 watts, autosensing, 87% PSU																						
<div><div>Preloaded operating system²⁰<ul style="list-style-type: none">- Genuine Windows® 7 Professional 32Preloaded 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)</div><div>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></div></div>				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																						
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Other accessories at lenovo.com/accessories																							

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	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, 16GB 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	Some: 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 Some: 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 <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	None															
Modem	None															
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant								Supports ThinkVantage® technologies							
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 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							
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														
- Windows® XP Professional preinstalled through downgrade rights in Genuine		1GB PC3-10600 DDR3 UDIMM 57Y4389														
Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)		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														
Preloaded applications ⁵ (only some listed)		DisplayPort to Single-link DVI-D Cable 45J7915														
• Rescue and Recovery™		DisplayPort to VGA Monitor Cable 57Y4393														
• Client Security Solution™		NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397														
• ThinkVantage Productivity Center		NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396														
• ThinkVantage System Update		More accessories on O-M90 sheet														
• ThinkVantage Power Manager		Acc Guide in pdf lenovo.com/accessoriesguide														
• Lenovo System Toolbox		Other accessories at lenovo.com/accessories														
• Norton™ Internet Security 2011 (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

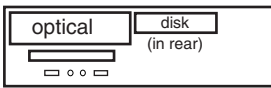
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 (MELB1-15) January 2010

ThinkCentre® M90 Small (3245) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> 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  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
Implementation		
Memory	2GB, 3GB, or 4GB std , 16GB 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	<i>Some:</i> 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 <i>Some:</i> 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)• 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
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	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)	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
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	

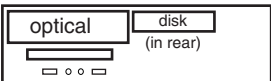
Preloaded operating system²⁰ <ul style="list-style-type: none">- <i>Some:</i> Genuine Windows® 7 Professional 32- <i>Some:</i> Genuine Windows 7 Professional 64	Accessories <ul style="list-style-type: none">1GB PC3-10600 DDR3 UDIMM 57Y43892GB PC3-10600 DDR3 UDIMM 57Y4390500GB SATA 3.0Gb/s Disk (7200 rpm) 43R19901TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918Super 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) 57Y4397NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396More accessories on O-M90 sheetAcc Guide in pdf lenovo.com/accessoriesguideOther 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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

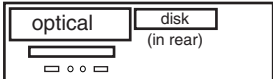
Personal Systems Reference (PSREF)

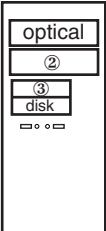
Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date	
5485-A1U	2x3	Pentium G6950	2.80	2	1GB	250GB ²	DVD	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
5485-A2U	2x3	Pentium G6950	2.80	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-J4U	2x3	Core i3-540	3.06	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Jun 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	<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 or i3-540 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 		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	1GB, 2GB, or 3GB std, 16GB 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	<i>Some:</i> 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 <i>Some:</i> 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															
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															
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 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												
Preloaded applications⁵ (only some listed)				Acc Guide in pdf lenovo.com/accessoriesguide												
• Rescue and Recovery™				Other accessories at lenovo.com/accessories												
• Client Security Solution™																
• ThinkVantage Productivity Center																
• ThinkVantage System Update																
• ThinkVantage Power Manager																
• Lenovo System Toolbox																
• Norton™ Internet Security 2011 (30-day)																
• Microsoft® Office 2007 Trial (60-day)																
• Corel® Burn.Now™ (DVD±RW)																
• Corel DVD MovieFactory® (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																

See footnotes for important warranty information

® US model announced June 1, 2010; previous models on 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			
<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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																	
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						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, 16GB max, UDIMM, PC3-10600 1333MHz DDR3*, four 240-pin DIMM sockets; Italics: standard memory in two sockets; two sockets available; Non-italics: standard memory in one socket; three sockets available * System automatically clocks down for processors with 1066MHz DDR3 memory controller																
Graphics	Some: 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 Some: 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																
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 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• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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 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																	
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 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																	

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										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, 16GB 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												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	Some: 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 Some: 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																
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	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, autosensing, 85% PSU																
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														
			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 2011 (30-day)														
			• Adobe® Reader®														
			• Adobe Flash® Player														
			• Microsoft® Office 2007 Trial (60-day)														
			• Corel® Burn.Now™ (DVD±RW)														
			• Corel DVD MovieFactory® (DVD±RW)														
			• Corel WinDVD® (DVD±RW)														
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																	
Supports ThinkVantage® technologies																	
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

⚠ US model withdrawn effective February 2010

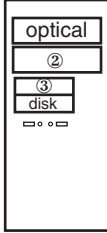
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 (MELB1-23) January 2010

ThinkCentre® M90 Tower (3246) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

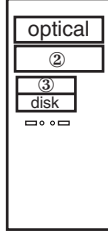
Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3246-B1U	4x4	Core i3-530	2.93	2	2GB	250GB ²	None	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Mar 10
3246-B2U	4x4	Core i5-750	2.66	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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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	2GB, 3GB, or 4GB std, 16GB 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										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	Some: 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™ conn, supports dual independent display Some: 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					
Graphics	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 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										Environmental Features <ul style="list-style-type: none"> • EPEAT™ Gold rating • ENERGY STAR® 5.0-compliant • GREENGUARD® certified • RoHS-compliant 					
SATA DVD±RW	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical										Supports ThinkVantage® technologies					
SATA Controller	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 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 					
eSATA port	Front ports Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)															
Diskette drive	Rear ports Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)															
Media reader	Rear audio ports Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)															
Chipset	Internal connector Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)															
Front ports	Audio High Definition (HD) Audio, Realtek® ALC662 codec															
Rear ports	Speaker Internal speaker for business audio															
Rear audio ports	Ethernet One gigabit ethernet port, Intel 82578DM, Wake on LAN®															
Internal connector	Intel AMT None															
Audio	Modem None															
Speaker	Security chip STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant															
Ethernet	Keyboard Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Intel AMT	Mouse Optical Wheel Mouse (USB connector), black, Lenovo logo															
Modem	Power supply 280 watts with variable speed fan, autosensing, 85% PSU															
Security chip	Preloaded operating system²⁰															
Keyboard	- <i>Some:</i> Genuine Windows® 7 Professional 32															
Mouse	- <i>Some:</i> Genuine Windows 7 Professional 64															
Power supply	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 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • 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															

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

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Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁶	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-F8U	4x4	Core i3-540	3.06	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Jun 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 or i3-540 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						
Memory	1GB, 2GB, or 3GB std, 16GB 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	<i>Some:</i> 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 conn, one DisplayPort™ connector, supports dual independent display <i>Some:</i> 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	<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															
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, autosensing, 85% PSU															
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										
			More accessories on O-M90 sheet													
Preloaded applications⁵ (only some listed)			Acc Guide in pdf lenovo.com/accessoriesguide			Other accessories at lenovo.com/accessories										
• Rescue and Recovery™																
• Client Security Solution™																
• ThinkVantage Productivity Center																
• ThinkVantage System Update																
• ThinkVantage Power Manager																
• Lenovo System Toolbox																
• Norton™ Internet Security 2011 (30-day)																
• Microsoft® Office 2007 Trial (60-day)																
• Corel® Burn.Now™ (DVD±RW)																
• Corel DVD MovieFactory® (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																

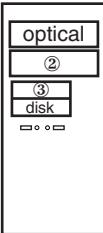
See footnotes for important warranty information

US model announced June 1, 2010; previous models on 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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								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		
Memory	2GB or 3GB std, 16GB 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												
Graphics	<i>Some:</i> 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 <i>Some:</i> 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 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	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, 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) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)										Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			

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® certified¹• RoHS-compliant	
Supports ThinkVantage® technologies	
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	


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 ^a	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		Eco Ultra Small 
Implementation	Processor in LGA1156 socket		
Memory	3GB std , 8GB max, PC3-10600 1333MHz DDR3 , two 204-pin SODIMM sockets (notebook); <i>Italics</i> : standard memory in both sockets; no sockets 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 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		<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
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	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		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 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)		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	Intel Active Management Technology 6.0 (Intel AMT 6.0)		
Modem	None		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
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		Accessories	
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)		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	
Preloaded applications ⁵ (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 • ThinkVantage Power Manager • Lenovo System Toolbox • Norton™ Internet Security 2011 (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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

* 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			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	3GB std , 8GB max, PC3-10600 1333MHz DDR3 , two 204-pin SODIMM sockets (notebook); <i>Italics: standard memory in both sockets; no sockets available</i>		<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		<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>	
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			
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			
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 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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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><div></div><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 , 8GB 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			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 Q57 Express 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			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																
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)																			
Modem	None			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)																
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			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
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																			
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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• ThinkVantage Power Manager• Lenovo System Toolbox• Norton™ Internet Security 2011 (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)																				

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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

* 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		Eco Ultra Small		<div><div>optical</div><div>disk</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	2GB or 3GB std , 8GB 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		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		Accessories		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	
- 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 2011 (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 2010 preloaded; purchase product key to activate					
• Corel® Burn.Now™ (DVD±RW)					
• Corel DVD MovieFactory® (DVD±RW)					

See footnotes for important warranty information

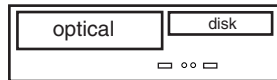
US models announced January 15, 2010

⚡ 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	
<ul style="list-style-type: none">• 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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)																
* 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 		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					
Implementation																
Memory	2GB std, 8GB 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								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															
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 Supports ThinkVantage® technologies							
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								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							
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													
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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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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 (MELB1-6) January 2010

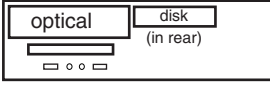
ThinkCentre® M90p Small (3269) - TopSeller (XP with Win7 License)

Personal Systems Reference (PSREF)

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
3269-A1U	2x3	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
3269-A2U	2x3	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														
Implementation	Small 														
Memory	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	3GB std, 16GB max, UDIMM, PC3-10600 1333MHz DDR3, four 240-pin DIMM sockets; <i>Italics: standard memory in two sockets; two sockets available;</i> 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	<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 														
SATA disk	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 														
SATA DVD±RW															
SATA Controller															
eSATA port															
Diskette drive	Environmental Features <ul style="list-style-type: none"> • EPEAT™ Gold rating • ENERGY STAR® 5.0-compliant • GREENGUARD® certified • RoHS-compliant 														
Media reader															
Chipset															
Front ports															
Rear ports	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 														
Internal connector															
Audio															
Speaker															
Ethernet	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 • Lenovo System Toolbox • Norton™ Internet Security 2011 (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 <ul style="list-style-type: none"> 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 														
Intel AMT															
Modem															
Security chip															
Keyboard	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														
Mouse															
Power supply															

See footnotes for important warranty information

US models announced January 15, 2010

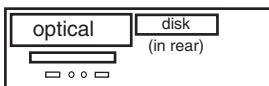
⚡ US model withdrawn effective February 2010

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(MELB1-12) January 2010

ThinkCentre® M90p Small (3269) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory ⁸	SATA disk	SATA optical	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							
3269-B1U	2x3	Core i7-870	2.93	3.60	4	4GB	500GB	DVD±RW	310	VGA, DP	ES50	vPro	Pro 64	None	Oct 10							
<ul style="list-style-type: none">• 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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																						
* 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 or Intel Core i7 Processor i7-870 with quad-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 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													
Memory	3GB or 4GB std, 16GB max, UDIMM, PC3-10600 1333MHz DDR3, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two 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	<i>Some:</i> 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 <i>Some:</i> 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	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	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 - <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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• 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 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														
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 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 model announced September 28, 2010; previous models on March 2, 2010

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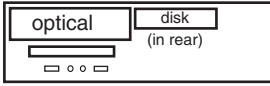
ThinkCentre® M90p Small (5536) - XP with Win7 License

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
5536-A1U	2x3	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
5536-A2U	2x3	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
5536-A3U	2x3	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
5536-E1U	2x3	Core i5-660	3.33	3.60	2	2GB	250GB	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		Small 
Implementation			
Memory	2GB or 3GB std , 16GB 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		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 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• Serial port I/O control• Individual USB port disablement
DP dongle	None		
SATA disk	250GB or 500GB , SATA 3.0Gb/s 7200 rpm		Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant
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		Supports ThinkVantage® technologies
eSATA port	None		
Diskette drive	None		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
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		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	
Preloaded applications⁵ (only some listed)		Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• Lenovo System Toolbox			
• Norton™ Internet Security 2011 (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

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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
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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

* 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		<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 2.0 x16 (75w 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 system board retention• System floor stand for vertical orientation
Implementation	Processor in LGA1156 socket		
Memory	2GB or 3GB std , 16GB 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		
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		
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 2011 (30 days of virus definitions)			
• Adobe® Reader®			
• Adobe Flash® Player			
• Skype™ for Windows			
• Microsoft Office 2010 preloaded; purchase product key to activate			
• 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			
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			
Security			
• 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			
• 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			

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
<ul style="list-style-type: none">• 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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
* 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 <div><div>optical</div><div>disk (in rear)</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 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 std , 16GB max, UDIMM, PC3-10600 1333MHz DDR3 , four 240-pin DIMM sockets; <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	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														
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														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo								Environmental Features <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant						
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo								Supports ThinkVantage® technologies						
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 2011 (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 2010 preloaded; purchase product key to activate			Other accessories at lenovo.com/accessories												
• Corel® Burn.Now™ (DVD±RW)															
• Corel DVD MovieFactory® (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">• 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 January 15, 2010

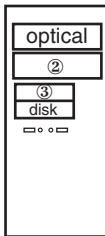
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(MELB1-11) January 2010

Personal Systems Reference (PSREF)

See footnotes for important warranty information
US models announced January 15, 2010
⌘ US model withdrawn effective February 2010

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	
3282-B3U	4x4	Core i7-870	2.93	3.60	4	4GB	500GB	None	DVD±RW	310	VGA, DP	ES50	vPro	Pro 64	None	Oct 10	
<ul style="list-style-type: none">• 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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																	
* For more information on Lenovo Secure Managed Client, see lenovo.com/acc																	
Positioning	<i>Ultimate security, stability, and manageability for the enterprise</i>										Tower						
Processor	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 or Intel Core i7 Processor i7-870 with quad-core , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 8MB cache Processor in LGA1156 socket										<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 , 16GB max, UDIMM, PC3-10600 1333MHz DDR3 , 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 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	<i>Some:</i> 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 <i>Some:</i> 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						
SATA disk	320GB or 500GB , SATA 3.0Gb/s 7200 rpm										<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 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						
Media reader	None										<ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• GREENGUARD® certified• RoHS-compliant						
Chipset	Intel Q57 Express 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)										Limited Warranty¹						
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)										<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 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																	
- <i>Some:</i> Genuine Windows® 7 Professional 32																	
- <i>Some:</i> Genuine Windows 7 Professional 64																	
Preloaded applications⁵ (all OSes; only some listed)																	
• Rescue and Recovery™																	
• Password Manager																	
• ThinkVantage System Update																	
• ThinkVantage Power Manager																	
• ThinkVantage Toolbox																	
• Norton™ Internet Security 2011 (30 days of virus definitions)																	
• Adobe® Reader®																	
• Adobe Flash® Player																	
• Skype™ for Windows																	
• Microsoft Office 2010 preloaded; purchase product key to activate																	
• 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																	

See footnotes for important warranty information

Ⓜ US model announced September 28, 2010; previous models on 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 vPro	Intel Preload	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> <div>Bay ① 5.25", 1.6" high, access, std optical</div> <div>Bay ② 5.25", 1.6" high, access, open</div> <div>Bay ③ 3.5", 1" high, access, open (reader/diskette)</div> <div>Bay ④ 3.5", 1" high, no access, std disk</div> <div>Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max)</div> <div>Slot 2: half-length,full-height, PCIe 2.0 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>		
Implementation	Processor in LGA1156 socket					
Memory	2GB or 3GB std. , 16GB 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, 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 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	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	280 watts with variable speed fan, autosensing, 85% PSU					
Preloaded operating system²⁰				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 2011 (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)				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 <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	Base GHz	Max Turbo GHz	Cores	Memory ⁶	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
<ul style="list-style-type: none">• 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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)															
* 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> <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 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</p>					
Implementation	2GB or 3GB std, 16GB 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														
Memory	2GB or 3GB std, 16GB 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														
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 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 2011 (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 2010 preloaded; purchase product key to activate															
• Corel® Burn.Now™ (DVD±RW)															
• Corel DVD MovieFactory® (DVD±RW)															
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															
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															

See footnotes for important warranty information

US models announced January 15, 2010

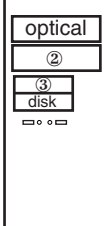
≡ US model withdrawn effective April 2010

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(MELB1-1) January 2010

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*
- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

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 , 16GB 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		
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, 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 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 2011		NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397
(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 2010 preloaded; purchase product key to activate			
• Corel® Burn.Now™ (DVD±RW)			
• Corel DVD MovieFactory® (DVD±RW)			
			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 <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 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</p>
			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
			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"> • 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 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
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	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

More information at

www.lenovo.com/support/desktopmemorycompatibility**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
Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ann 03/31/09

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 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® 256MB NVS 290		
(2-DVI or 2-VGA via DMS59 dongles)	43R1765	ann 12/18/07
NVIDIA Quadro 256MB NVS 295 (2-DP)	45K1669	ann 04/21/09
NVIDIA Quadro 512MB FX 380 LP		
(DP, DVI with a DVI to VGA converter)	57Y4396	ann 02/02/10
NVIDIA GeForce® 512MB 310 (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 512MB 310		
(2-DVI or 2-VGA via DMS59 dongles)	57Y4167	ann 03/02/10

Tower 3246/5474/3282/5498/5852 support 75 watts max:

NVIDIA Quadro 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB NVS 295 (2-DP)	45K1669	ann 04/21/09
NVIDIA Quadro 512MB NVS450 (4-DP/4-DVI)	57Y4398	ann 01/19/10
NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 512MB 310	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 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 ⁶⁰	57Y4488	ann 01/07/10
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⁶⁰ Has a 1.2 meter (3.9-foot) cable. Best when systems are in close proximity. Example: SFF placed on a desk.**Security**

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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 L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
ThinkCentre Extend Arm	57Y4352	ann 07/06/10

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

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 M90z with Frame Stand



Lenovo ThinkCentre M90z with Height Adjustable Stand Option 57Y4351
(57Y4351 is not compatible to Multi-touch models)



Tool-Less Back Cover Removal



Handle



Dual Independent Display with Optional Lenovo ThinkVision Monitor
and Lenovo Ultralim Wireless Keyboard/Mouse Kit (57Y4700)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	Integrated graphics	SATA disk	SATA optical	PCle Mini Card 802.11	Stand type	Intel vPro	Win7 preload	Global Educ	Avail date
3429-A1U	G6950	2.80	2GBx1	23.0" Full HD		Intel HD	320GB ²	DVD±RW	Intel 1000	Frame		Pro 32	None	Jun 10
3429-A2U	i3-530	2.93	2+1GB	23.0" Full HD	2.0M	Intel HD	500GB	DVD±RW	Intel 1000	Frame		Pro 32	None	Jun 10
3429-A3U	i5-650	3.20	2GBx2	23.0" Full HD	2.0M	Intel HD	500GB	DVD±RW	Intel 1000	Frame	vPro	Pro 64	None	Jun 10
<ul style="list-style-type: none">• Best space saving solution & excellent cable management• These small and medium business (SMB) models are part of the US TopSeller™ Program• These models have a 3-year limited warranty¹• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)														
Positioning Processor	<i>All-In-One PC 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, 4MB cache or 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								All-In-One <i>All:</i> <ul style="list-style-type: none">• Business black color• Handle in rear• Support VESA mount (100mm)• Tool-less back cover, disk, optical drive, memory removal <i>Model(s) with Frame stand:</i> <ul style="list-style-type: none">• 22" W X 4.29" D X 17.4" H• 560mm W X 109mm D X 443mm H• 23.6 lb (10.7 kg) in maximum configuration Bay ① 3.5", 1" high, no access, std disk (desktop) Bay ② slim, .5" high, access, std optical (notebook)					
Implementation														
Memory	2GB, 3GB, or 4GB std, 8GB max ³ , PC3-10600 1333MHz DDR3* , dual-channel capable, two 204-pin SODIMM sockets (notebook) * System automatically clocks down for processors with 1066MHz DDR3 memory controller								Security <ul style="list-style-type: none">• Security chip (see information left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)• Boot sequence control• Boot without keyboard, mouse• Individual USB port disablement					
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB model], up to 1277MB [3GB model], 1759MB [4GB model]), one DisplayPort™ connector, supports dual independent display													
DP dongle	None													
Widescreen	23.0" (584.2mm) Full HD 1080p (1920x1080) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 dynamic contrast ratio, work as standalone monitor via VGA-in connector													
Multi-touch	None													
Camera	<i>Some:</i> Camera on top of screen, 2.0-megapixel, fixed focus, integrated digital MIC array with stereo, LED indicator, physical on/off switch													
SATA disk	320GB or 500GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm													
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm high													
eSATA port	None													
Diskette drive	None													
Media reader	None													
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for SATA, ethernet, and USB								Supports ThinkVantage® technologies					
Ports	<i>Rear:</i> four USB 2.0, ethernet (RJ-45), DisplayPort, VGA-in connector <i>Side:</i> two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm) One PCI Express Mini Card slot 11b/g/n wireless ¹³ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2								<ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• TCO Certified Edge• GREENGUARD® certified• RoHS-compliant					
PCle Mini Card	One PCI Express Mini Card slot													
Intel 1000	11b/g/n wireless ¹³ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2													
Bluetooth™	None													
Ethernet	One gigabit ethernet port, Intel 82578DM													
Audio	High Definition (HD) Audio, Realtek® ALC269 codec													
Speaker	Two internal speakers (2watt x 2)													
IEEE 1394	None													
Intel AMT	<i>vPro model(s):</i> Intel Active Management Technology 6.0 (Intel AMT 6.0) <i>Non-vPro model(s):</i> 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), 400 dpi, black, Lenovo logo													
Power supply	150 watts, autosensing, 85% PSU, 80 PLUS® Bronze qualified													
Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows® 7 Professional 64				Accessories 2GB PC3-10600 DDR3 SODIMM 55Y3710 ThinkCentre M90z Height Adjustable Stand 57Y4351 More accessories on O-M90Z 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™• ThinkVantage System Update• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)				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										

Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Stand type	Intel vPro	Win7 preload	Global Educ	Avail date
3650-A1U	i3-530	2.93	2GBx1	23.0" Full HD	None	Intel HD	250GB ²	DVD±RW	None	Frame	None	Pro 32	None	Jun 10
<ul style="list-style-type: none">• Best space saving solution & excellent cable management• This model has a 1-year limited warranty¹• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)														
Positioning Processor	<i>All-In-One PC for the enterprise</i> 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								All-In-One <i>All:</i> <ul style="list-style-type: none">• Business black color• Handle in rear• Support VESA mount (100mm)• Tool-less back cover, disk, optical drive, memory removal <i>Model(s) with Frame stand:</i> <ul style="list-style-type: none">• 22" W X 4.29" D X 17.4" H• 560mm W X 109mm D X 443mm H• 23.6 lb (10.7 kg) in maximum configuration Bay ① 3.5", 1" high, no access, std disk (desktop) Bay ② slim, .5" high, access, std optical (notebook)					
Implementation	Processor in LGA1156 socket													
Memory	2GB std, 8GB max ⁸ , PC3-10600 1333MHz DDR3 , dual-channel capable, two 204-pin SODIMM sockets (notebook)													
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one DisplayPort™ connector, supports dual independent display													
DP dongle	None													
Widescreen	23.0" (584.2mm) Full HD 1080p (1920x1080) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 dynamic contrast ratio, work as standalone monitor via VGA-in connector													
Multi-touch	None								Security <ul style="list-style-type: none">• Security chip (see information left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)• Boot sequence control• Boot without keyboard, mouse• Individual USB port disablement					
Camera	None													
SATA disk	250GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm													
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm high													
eSATA port	None													
Diskette drive	None													
Media reader	None													
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for SATA, ethernet, and USB													
Ports	<i>Rear:</i> four USB 2.0, ethernet (RJ-45), DisplayPort, VGA-in connector <i>Side:</i> two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)													
PCIe Mini Card	One PCI Express Mini Card slot													
Intel 1000	None													
Bluetooth™	None													
Ethernet	One gigabit ethernet port, Intel 82578DM													
Audio	High Definition (HD) Audio, Realtek® ALC269 codec													
Speaker	Two internal speakers (2watt x 2)													
IEEE 1394	None													
Intel AMT	None													
Modem	None								Supports ThinkVantage® technologies					
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant								<ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• TCO Certified Edge• GREENGUARD® certified• RoHS-compliant					
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo								Limited Warranty¹ <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					
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo													
Power supply	150 watts, autosensing, 85% PSU, 80 PLUS® Bronze qualified													
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				Accessories 2GB PC3-10600 DDR3 SODIMM 55Y3710 ThinkCentre M90z Height Adjustable Stand 57Y4351 More accessories on O-M90Z sheet										
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 Message Center Plus• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel DVD MovieFactory® (DVD±RW)				Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories										


Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	SATA disk	Chassis intr switch	Blue- tooth	Media reader	PCIe Mini Card 802.11	Stand type	Intel vPro	Win7 preload	Global Educ	Avail date
5205-A5U	i3-530	2.93	2GBx1	23.0" Full HD		320GB ²					Frame		Pro 32	None	Jun 10
5205-A6U	i5-650	3.20	2GBx2	23.0" Full HD	2.0M	500GB				Intel 1000	Frame	vPro	Pro 64	None	Jun 10
5205-B1U	i5-650	3.20	2GBx1	23.0" Full HD	2.0M	320GB	Switch	Blue	Media	Intel 1000	Lift	vPro	Pro 32	None	Jun 10
5205-B2U	i5-670	3.46	2GBx1	23.0" Full HD	2.0M	320GB	Switch	Blue	Media	Intel 1000	Lift	vPro	Pro 32	None	Jun 10
<ul style="list-style-type: none">• Best space saving solution & excellent cable management• These models have a 3-year limited warranty¹• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)															
Positioning Processor	<i>All-In-One PC for the enterprise</i> 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 i5-650 or i5-670 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									All-In-One <i>All:</i> <ul style="list-style-type: none">• Business black color• Handle in rear• Support VESA mount (100mm)• Tool-less back cover, disk, optical drive, memory removal <i>Model(s) with Frame stand:</i> <ul style="list-style-type: none">• 22" W X 4.29" D X 17.4" H• 560mm W X 109mm D X 443mm H• 23.6 lb (10.7 kg) in maximum configuration <i>Model(s) with Lift stand:</i> <ul style="list-style-type: none">• Height Adjustable• 22" W X 9.84" D X 17.4" H• 560mm W X 250mm D X 443mm H• 29.3 lb (13.3 kg) in maximum configuration• Tilt -5°-25° <i>All:</i> Bay ① 3.5", 1" high, no access, std disk (desktop) Bay ② slim, .5" high, access, std optical (notebook)					
Implementation	2GB or 4GB std, 8GB max ⁸ , PC3-10600 1333MHz DDR3 , dual-channel capable, two 204-pin SODIMM sockets (notebook)														
Memory															
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB models], 1759MB [4GB model]), one DisplayPort™ connector, supports dual independent display														
DP dongle	None														
Widescreen	23.0" (584.2mm) Full HD 1080p (1920x1080) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 dynamic contrast ratio, work as standalone monitor via VGA-in connector														
Multi-touch	None														
Camera	<i>Some:</i> Camera on top of screen, 2.0-megapixel, fixed focus, integrated digital MIC array with stereo, LED indicator, physical on/off switch									Security <ul style="list-style-type: none">• Security chip (see information left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)• Boot sequence control• Boot without keyboard, mouse• Individual USB port disablement• <i>Some:</i> Chassis intrusion switch					
SATA disk	320GB or 500GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm														
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm high														
eSATA port	None														
Diskette drive	None														
Media reader	<i>Some:</i> Single Slot SD Media Card Reader														
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for SATA, ethernet, and USB														
Ports	<i>Rear:</i> four USB 2.0, ethernet (RJ-45), DisplayPort, VGA-in connector <i>Side:</i> two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
PCIe Mini Card	One PCI Express Mini Card slot														
Intel 1000	<i>Some:</i> 11b/g/n wireless ¹³ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2									Supports ThinkVantage® technologies					
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, Broadcom® BCM2070, LED indicator														
Ethernet	One gigabit ethernet port, Intel 82578DM									<ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• TCO Certified Edge• GREENGUARD® certified• RoHS-compliant					
Audio	High Definition (HD) Audio, Realtek® ALC269 codec														
Speaker	Two internal speakers (2watt x 2)														
IEEE 1394	None														
Intel AMT	<i>vPro model(s):</i> Intel Active Management Technology 6.0 (Intel AMT 6.0) <i>Non-vPro model(s):</i> 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 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					
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	150 watts, autosensing, 85% PSU, 80 PLUS® Bronze qualified														
Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows® 7 Professional 64					Accessories 2GB PC3-10600 DDR3 SODIMM 55Y3710 ThinkCentre M90z Height Adjustable Stand 57Y4351 More accessories on O-M90Z 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• Lenovo Message Center Plus• Norton™ Internet Security 2011 (30 days of virus definitions)• Microsoft Office 2010 preloaded; purchase product key to activate• Corel DVD MovieFactory® (DVD±RW)															


Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	SATA disk	Chassis intr switch	Blue-tooth	PCIe Mini Card 802.11	Media reader	Stand type	Intel vPro	Win7 preload	Global (G) GMP (P)	Avail date
2471-A1U	i5-650	3.20	2GBx1	23.0" Full HD	2.0M	320GB ²	Switch	None	None	Media	Lift	vPro	Pro 32	G P	Jul 10
<ul style="list-style-type: none">• Best space saving solution & excellent cable management• This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
Positioning Processor	All-In-One PC for the enterprise Intel® Core™ 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								All-In-One All: <ul style="list-style-type: none">• Business black color• Handle in rear• Support VESA mount (100mm)• Tool-less back cover, disk, optical drive, memory removal						
Implementation									Model(s) with Lift stand: <ul style="list-style-type: none">• Height Adjustable• 22" W X 9.84" D X 17.4" H• 560mm W X 250mm D X 443mm H• 29.3 lb (13.3 kg) in maximum configuration• Tilt -5°-25°						
Memory	2GB std, 8GB max ⁸ , PC3-10600 1333MHz DDR3 , dual-channel capable, two 204-pin SODIMM sockets (notebook)								Bay ① 3.5", 1" high, no access, std disk (desktop) Bay ② slim, .5" high, access, std optical (notebook)						
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one DisplayPort™ connector, supports dual independent display								Security <ul style="list-style-type: none">• Security chip (see information left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)• Boot sequence control• Boot without keyboard, mouse• Individual USB port disablement• Chassis intrusion switch						
DP dongle	None														
Widescreen	23.0" (584.2mm) Full HD 1080p (1920x1080) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 dynamic contrast ratio, work as standalone monitor via VGA-in connector														
Multi-touch	None														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus, integrated digital MIC array with stereo, LED indicator, physical switch on/off														
SATA disk	320GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm														
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm high														
eSATA port	None														
Diskette drive	None														
Media reader	Single Slot SD Media Card Reader														
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for SATA, ethernet, and USB								Supports ThinkVantage® technologies <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• TCO Certified Edge• 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						
Ports	Rear: four USB 2.0, ethernet (RJ-45), DisplayPort, VGA-in connector Side: two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
PCIe Mini Card	One PCI Express Mini Card slot														
Intel 1000	None														
Bluetooth™	None														
Ethernet	One gigabit ethernet port, Intel 82578DM														
Audio	High Definition (HD) Audio, Realtek® ALC269 codec														
Speaker	Two internal speakers (2watt x 2)														
IEEE 1394	None														
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								55Y3710						
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo														
Power supply	150 watts, autosensing, 85% PSU, 80 PLUS® Bronze qualified														
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32					Accessories 2GB PC3-10600 DDR3 SODIMM More accessories on O-M90Z sheet										
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 Message Center Plus• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)					Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories										

A person's hands are shown interacting with a large, wall-mounted digital display. The display shows a website with a blue header and a main content area featuring a photograph of two people. The person is using their index finger to touch the screen, likely navigating through the website. The display is mounted on a black frame and is tilted slightly away from the viewer.

Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	Integrated graphics	SATA disk	Chassis intr switch	Blue- tooth	PCIe Mini Card 802.11	Media reader	Intel vPro	Win7 preload	Global Educ	Avail date
0800-A2U	i5-650	3.20	2GBx2	23.0" Full HD	2.0M	Intel HD 500GB ²				Intel 1000	Media	vPro	Pro32	None	Jun 10
0800-A5U	i5-650	3.20	2GBx1	23.0" Full HD	2.0M	Intel HD 320GB		Switch	Blue	Intel 1000	Media	vPro	Pro32	None	Jun 10
0800-A6U	i5-670	3.46	2GBx1	23.0" Full HD	2.0M	Intel HD 320GB		Switch	Blue	Intel 1000	Media	vPro	Pro32	None	Jun 10
0800-D4U	i3-530	2.93	2GBx1	23.0" Full HD	2.0M	Intel HD 320GB				Intel 1000			Pro32	None	Jun 10

- **Best space saving solution & excellent cable management**
- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>All-In-One PC for the enterprise</i> 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 i5-650 or i5-670 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	All-In-One <ul style="list-style-type: none">• Business black color• 22" W X 4.57" D X 17.4" H• 560mm W X 116mm D X 443mm H• 25.3 lb (11.5 kg) in maximum configuration• Handle in rear• Support VESA mount (100mm)• Tool-less back cover, disk, optical drive, memory removal• Frame stand
Implementation		Bay ① 3.5", 1" high, no access, std disk (desktop) Bay ② slim, .5" high, access, std optical (notebook)
Memory	2GB or 4GB std, 8GB max ⁸ , PC3-10600 1333MHz DDR3 , dual-channel capable, two 204-pin SODIMM sockets (notebook)	
Graphics	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB models], 1759MB [4GB model]), one DisplayPort™ connector, supports dual independent display	
DP dongle	None	
Widescreen	23.0" (584.2mm) Full HD 1080p (1920x1080) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 dynamic contrast ratio, work as standalone monitor via VGA-in connector	
Multi-touch Camera	Supports Multi-touch function Camera on top of screen, 2.0-megapixel, fixed focus, integrated digital MIC array with stereo, LED indicator, physical on/off switch	
SATA disk	320GB or 500GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm	Security <ul style="list-style-type: none">• Security chip (see information left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)• Boot sequence control• Boot without keyboard, mouse• Individual USB port disablement• Some: Chassis intrusion switch
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm high	
eSATA port	None	
Diskette drive	None	
Media reader	Some: Single Slot SD Media Card Reader	Supports ThinkVantage® technologies
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for SATA, ethernet, and USB	<ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• TCO Certified Edge• GREENGUARD® certified• RoHS-compliant
Ports	<i>Rear:</i> four USB 2.0, ethernet (RJ-45), DisplayPort, VGA-in connector <i>Side:</i> 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
PCIe Mini Card	One PCI Express Mini Card slot	
Intel 1000	11b/g/n wireless ¹³ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2	
Bluetooth™	Some: Bluetooth 2.1 wireless, Broadcom® BCM2070, LED indicator	
Ethernet	One gigabit ethernet port, Intel 82578DM	
Audio	High Definition (HD) Audio, Realtek® ALC269 codec	
Speaker	Two internal speakers (2watt x 2)	
IEEE 1394	None	
Intel AMT	<i>vPro model(s):</i> Intel Active Management Technology 6.0 (Intel AMT 6.0) <i>Non-vPro model(s):</i> 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), 400 dpi, black, Lenovo logo	
Power supply	150 watts, autosensing, 85% PSU, 80 PLUS® Bronze qualified	
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32		55Y3710
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 Message Center Plus• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)		
Accessories 2GB PC3-10600 DDR3 SODIMM More accessories on O-M90Z sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		

Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	SATA disk	Chassis intr switch	Blue-tooth	PCIe Mini Card 802.11	Media reader	Intel vPro	Win7 preload	Global (G) GMP (P)	Avail date
0852-A1U	i5-650	3.20	2GBx1	23.0" Full HD	2.0M	320GB ²	Switch	None	None	Media	vPro	Pro 32	G P	Jul 10
<ul style="list-style-type: none">• Best space saving solution & excellent cable management• This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)														
Positioning Processor	<i>All-In-One PC for the enterprise</i> 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								All-In-One <ul style="list-style-type: none">• Business black color• 22" W X 4.57" D X 17.4" H• 560mm W X 116mm D X 443mm H• 25.3 lb (11.5 kg) in maximum configuration• Handle in rear• Support VESA mount (100mm)• Tool-less back cover, disk, optical drive, memory removal• Frame stand					
Implementation	2GB std, 8GB max ⁸ , PC3-10600 1333MHz DDR3 , dual-channel capable, two 204-pin SODIMM sockets (notebook)								Bay ① 3.5", 1" high, no access, std disk (desktop) Bay ② slim, .5" high, access, std optical (notebook)					
Memory	Intel HD Graphics in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one DisplayPort™ connector, supports dual independent display													
Graphics	23.0" (584.2mm) Full HD 1080p (1920x1080) TFT color , anti-glare, CCFL backlight, 250 nits, 16:9 aspect ratio, 1000:1 dynamic contrast ratio, work as standalone monitor via VGA-in connector Supports Multi-touch function Camera on top of screen, 2.0-megapixel, fixed focus, integrated digital MIC array with stereo, LED indicator, physical switch on/off													
DP dongle	None													
Widescreen	None													
Multi-touch	None													
Camera	None								Security <ul style="list-style-type: none">• Security chip (see information left)• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)• Boot sequence control• Boot without keyboard, mouse• Individual USB port disablement• Chassis intrusion switch					
SATA disk	320GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm													
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm high													
eSATA port	None													
Diskette drive	None													
Media reader	Single Slot SD Media Card Reader								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					
Chipset	Intel Q57 Express Chipset Platform Controller Hub (PCH) for SATA, ethernet, and USB													
Ports	<i>Rear:</i> four USB 2.0, ethernet (RJ-45), DisplayPort, VGA-in connector <i>Side:</i> two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm) One PCI Express Mini Card slot													
PCIe Mini Card	None													
Intel 1000	None													
Bluetooth™	None													
Ethernet	One gigabit ethernet port, Intel 82578DM													
Audio	High Definition (HD) Audio, Realtek® ALC269 codec													
Speaker	Two internal speakers (2watt x 2)													
IEEE 1394	None													
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 <ul style="list-style-type: none">• EPEAT™ Gold rating• ENERGY STAR® 5.0-compliant• TCO Certified Edge• GREENGUARD® certified• RoHS-compliant					
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo													
Power supply	150 watts, autosensing, 85% PSU, 80 PLUS® Bronze qualified													
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				Accessories 2GB PC3-10600 DDR3 SODIMM More accessories on O-M90Z sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories				55Y3710						
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 Message Center Plus• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)														

See footnotes for important warranty information
 US model announced June 15, 2010

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 (MABS1-6) June 2010

Partial list of accessories supported on ThinkCentre M90z AIO

Memory

1GB PC3-10600 DDR3 SODIMM	55Y3709	ann 03/02/10
1GB PC3-10600 DDR3 SODIMM (25Pack)	57Y4415	ann 03/02/10
2GB PC3-10600 DDR3 SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 SODIMM	55Y3711	ann 03/02/10

More information at

www.lenovo.com/support/desktopmemorycompatibility**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 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.**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 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

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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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.**Stand**

ThinkCentre M90z Height Adjustable Stand ⁵⁹	57Y4351	ann 05/04/10
ThinkCentre Extend Arm ⁵⁷	57Y4352	ann 07/06/10

⁵⁷ Compatible when ThinkCentre Extend Arm is desk (clamp)

mounted only, wall mount is not supported.

⁵⁹ Not compatible to Multi-touch models.**Monitors**

Lenovo D186 Wide 18.5" Monitor	2580AB1	ann 01/12/10
Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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
DisplayPort™ to Single-link DVI-D Cable	45J7915	ann 08/05/08
DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
Kensington MicroSaver Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
ThinkCentre Extend Arm	57Y4352	ann 07/06/10

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

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 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



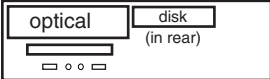
Lenovo ThinkCentre A58 Tower



Lenovo ThinkCentre A58 Tower

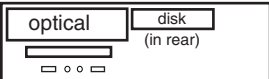
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Preload	Global Educ	Avail date
A58	7522-M8U	2x3	Celeron E3200	2.40	1MB	2	1GB	250GB ²	DVD±RW	GMA	XP Pro	None	Nov 09
A58	7522-K6U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro	None	Nov 09
A58	7522-K7U	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 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, 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 <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 Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant Limited Warranty¹ <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		
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					
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		
Preloaded applications⁵ (only some listed)		Super Multi-Burner DL DVD±RW SATA Drive		41N5620		
• Rescue and Recovery™		DisplayPort to Single-link DVI-D Cable		45J7915		
• Password Manager		ADD2 DVI-D Monitor Connection (HDCP)		43R1985		
• Lenovo Care™		More accessories on O-A58 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® Small 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	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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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	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 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	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	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 system²⁰ - Genuine Windows® 7 Professional 32	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 More accessories on O-A58 sheet Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	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 2010 preloaded; purchase product key to activate • Roxio® Creator® Small Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) 		

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

More information at

www.lenovo.com/support/desktopmemorycompatibility**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

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 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
NVIDIA® GeForce® 512MB 310 (2-DVI or 2-VGA via DMS59 dongles)	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
NVIDIA GeForce 512MB 310	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 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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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 L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
ThinkCentre Extend Arm	57Y4352	ann 07/06/10

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

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

Personal Systems Reference (PSREF)

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(ALGS1-1) June 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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) 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 <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>□ □ □ □</div></div> <div>Bay ① 5.25", 1.6" high, access, std optical</div> <div>Bay ② 5.25", 1.6" high, access, open</div> <div>Bay ③ 3.5", 1" high, access, open (reader)</div> <div>Bay ④ 3.5", 1" high, no access, std disk</div>																			
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)		GREENGUARD® certified																			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		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 system²⁰ <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>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	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																					
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																					
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																					
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 applications⁵ (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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate																						

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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

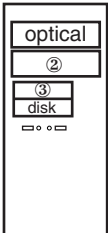
Positioning Processor	Optimized for small and medium businesses AMD® Athlon™ II X2 Processor 240 with dual-core , 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) Processor in Socket AM3		Tower <ul style="list-style-type: 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			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		
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		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				
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 - 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 NVIDIA® GeForce® 310 512MB (DP, VGA) 57Y4397 More accessories on O-A63 sheet		Supports ThinkVantage® technologies	
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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate		Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		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	

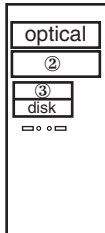
See footnotes for important warranty information
US model announced January 12, 2010

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(ALGS1-6) January 2010

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			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		
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; A4U: PC3-10600 1333MHz DDR3; A6U/A8U/AFU: PC3-8500 1066MHz DDR3				
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 <i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive <i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		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• <i>Some:</i> Chassis intrusion switch		
SATA DVD	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors				
SATA DVD±RW	None				
SATA Controller	None				
eSATA port	None				
Diskette drive	None		Supports ThinkVantage technologies		
Media reader	None		GREENGUARD® certified RoHS-compliant		
Chipset	AMD 760G Chipset with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O		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		
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	<i>Some:</i> 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		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	
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• ThinkVantage Product Recovery• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo System Toolbox• Norton™ Internet Security 2011 (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)		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	
		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			

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 warranty ¹ • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																															
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 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) or 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 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, opt reader 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, PCIe 2.0 x1 Slot 4: half-length,full-height, 32-bit PCI 2.3																						
Memory	2GB or 3GB std , 4GB max, UDIMM , two 240-pin 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; ABU/APU/ARU/ASU: PC3-10600 1333MHz DDR3; ANU: PC3-8500 1066MHz DDR3										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• <i>Some:</i> Chassis intrusion switch																				
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										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 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																				
SATA disk(s)	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 SB710, four SATA connectors																														
eSATA port	None																														
Diskette drive	None																														
Media reader	<i>Some:</i> 25-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 / 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)																														
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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">- Genuine Windows® 7 Professional 32 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>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>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 Preloaded applications⁵ (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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate																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	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397
1GB PC3-8500 DDR3 UDIMM	45J5434																														
2GB PC3-8500 DDR3 UDIMM	45J5435																														
1GB PC3-10600 DDR3 UDIMM	57Y4389																														
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Super Multi-Burner DL DVD±RW SATA Drive	41N5620																														
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397																														

See footnotes for important warranty information

US models announced January 12, 2010

US model withdrawn effective March 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.

More information at

www.lenovo.com/support/desktopmemorycompatibility

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 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
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 512MB 310 (2-DVI or 2-VGA via DMS59 dongles)	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
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 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

Security

Kensington® MicroSaver® Cable Lock ⁵⁶	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock ⁵⁶	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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
Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
ThinkCentre Extend Arm	57Y4352	ann 07/06/10

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

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 A70 Small and
Lenovo ThinkCentre A70 Tower



Lenovo ThinkCentre A70 Tower
with Lenovo ThinkVision monitor



Lenovo ThinkCentre A70 Small



Lenovo ThinkCentre A70 Small
with Lenovo ThinkVision monitor



Lenovo ThinkCentre A70 Tower



Lenovo ThinkCentre A70 Small

- *These small and medium business (SMB) models are part of the US TopSeller™ Program*
- *These models have a 1-year limited warranty¹*
- *These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)*

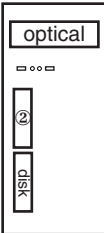
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ThinkCentre® A70 Tower (7099) - TopSeller (Windows 7)

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
A70	7099-C2U	4x3	Celeron E3300	2.50	1MB	2	1GB	320GB ²	None	DVD	GMA	Pro 32	None	Aug 10
A70	7099-B8U	4x3	Pentium E5500	2.80	2MB	2	2GB	320GB	None	DVD±RW	GMA	Pro 32	None	Aug 10
A70	7099-E6U	4x3	Pentium E5500	2.80	2MB	2	3GB	320GB	None	DVD±RW	GMA	Prem 32	None	Aug 10
A70	7099-E5U	4x3	Pentium E5500	2.80	2MB	2	4GB	500GB	None	DVD±RW	GMA	Pro 64	None	Aug 10
A70	7099-A5U	4x3	Core 2 Duo E7500	2.93	3MB	2	2GB	320GB	None	DVD±RW	GMA	Pro 32	None	Aug 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 1-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Quality, reliability, and security for small/medium businesses Intel® Celeron® Processor E3300 with dual-core , 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E5500 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			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.3" W X 14.0" D X 15.4" H• 160mm W X 355mm D X 392mm H• 23.1 lb (10.5 kg) in max configuration• Non-slip designed handle on top front• Power button on top handle• Highlighted optical drive button for easy access 																	
Implementation	Processor in LGA775 socket			Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, open* Bay ③ 3.5", 1" high, no access, std disk * no support for second disk																	
Memory	1GB, 2GB, 3GB, or 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 avail; <i>Non-italics:</i> standard memory in one socket; one socket available			Slot 1: half-length,full-height, PCI Express x16 (45w max) Slot 2: half-length,full-height, PCI Express x1 Slot 3: half-length,full-height, PCI Express x1 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], 1277MB [3GB models], or 1759MB [4GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																				
SATA disk	320GB 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• Boot sequence control• Serial 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), three 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), 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, Realtek® RTL8111DL																				
Intel AMT	None																				
Modem	None																				
Security chip	None																				
Keyboard	Lenovo Slim USB Keyboard (USB connector), black, Lenovo® logo			Supports ThinkVantage® technologies																	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			RoHS-compliant																	
Power supply	180 watts, universal, 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- <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 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (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>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>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>NVIDIA® GeForce® 310 512MB (DP, VGA)</td><td>57Y4397</td></tr></table> More accessories on O-A70 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	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	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397
1GB PC3-8500 DDR3 UDIMM	45J5434																				
2GB PC3-8500 DDR3 UDIMM	45J5435																				
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																				
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																				
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397																				

See footnotes for important warranty information
US models announced August 3, 2010

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Partial list of accessories supported on ThinkCentre A70

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

More information at

www.lenovo.com/support/desktopmemorycompatibility**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
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 7844 support Low Profile:

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
NVIDIA® Quadro® 512MB FX 380 LP		
(DP, DVI with a DVI to VGA converter)	57Y4396	ann 02/02/10
NVIDIA GeForce® 310 512MB (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 512MB 310		
(2-DVI or 2-VGA via DMS59 dongles)	57Y4167	ann 03/02/10

Tower 7099 support 75 watts max:

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
NVIDIA GeForce 310 512MB (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 512MB 310	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
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 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 ⁶⁰	57Y4488	ann 01/07/10
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⁶⁰ Has a 1.2 meter (3.9-foot) cable. Best when systems are in close proximity. Example: SFF placed on a desk.

Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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
Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
ThinkCentre Extend Arm	57Y4352	ann 07/06/10

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

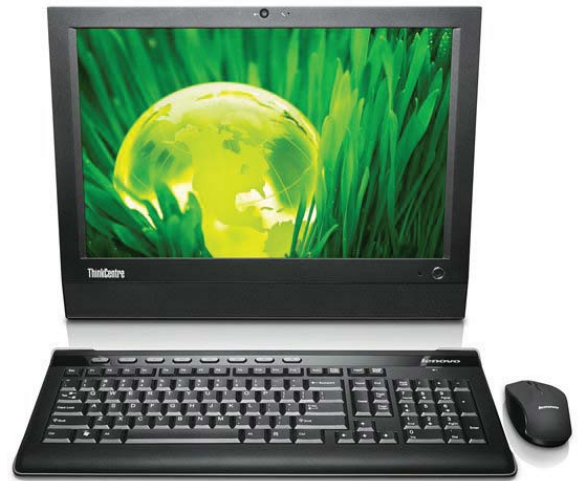
For more information on desktop accessories, please visit:

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 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



ThinkCentre Extend Arm
57Y4352

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							
0401-A2U	E3300	2.50	1GB	19.0" WXGA+		GMA X4500	320GB ²	DVD±RW		USB	ES50	Prem 32	None	Jun 10							
0401-A3U	E5500	2.80	2GB	19.0" WXGA+	1.3M	GMA X4500	320GB	DVD±RW		USB	ES50	Pro 32	None	Jun 10							
0401-D3U	E5500	2.80	3GB	19.0" WXGA+	1.3M	GMA X4500	320GB	DVD±RW	11b/g/n ¹²	USB	ES50	Prem 32	None	Jun 10							
0401-B6U	E5500	2.80	4GB	19.0" WXGA+	1.3M	GMA X4500	500GB	DVD±RW	11b/g/n	USB	ES50	Pro 32	None	Jun 10							
0401-B7U	E7500	2.93	2GB	19.0" WXGA+	1.3M	GMA X4500	320GB	DVD±RW	11b/g/n	USB	ES50	Pro 32	None	Jun 10							
0401-A5U	E7500	2.93	4GB	19.0" WXGA+	1.3M	GMA X4500	320GB	DVD±RW	11b/g/n	Wireless	ES50	Pro 64	None	Jun 10							
<ul style="list-style-type: none">• 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• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																					
Positioning Processor	All-In-One PC for business customers Intel® Celeron® Processor E3300 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E5500 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, 2GB, 3GB, or 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 <i>Non-italics:</i> standard memory in one socket; one socket available								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												
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory, DirectX® 10																				
SATA disk	320GB or 500GB , 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								Supports ThinkVantage® technologies												
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																					
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)								ENERGY STAR® 5.0-compliant RoHS-compliant												
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																					
Audio	High Definition (HD) Audio, CONEXANT™ CX20582 codec																				
Speaker	Two internal speakers (2 watt x 2)																				
IEEE 1394	None								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												
Ethernet	Gigabit ethernet on planar, Realtek® RTL8111DL																				
Intel AMT	None																				
Modem	None																				
Security chip	None																				
Keyboard	<i>Some:</i> Ultralim Wireless Keyboard (2.4GHz via USB receiver), black <i>Some:</i> Preferred Pro USB Keyboard (USB), 104-key, black, Lenovo® logo								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- <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications⁵ (all OSes; only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)												
Mouse	<i>Some:</i> Ultralim Wireless Mouse (2.4GHz via USB receiver), 1000 dpi, black <i>Some:</i> Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																				
Power supply	130 watts, autosensing, 85% PSU																				
Accessories <ul style="list-style-type: none">1GB PC3-8500 DDR3 UDIMM 45J54342GB PC3-8500 DDR3 UDIMM 45J5435ThinkCentre A70z Performance Stand 57Y4277More accessories on O-A70Z sheetAcc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories																					

See footnotes for important warranty information

US models announced June 1, 2010; previous models on May 25 or June 1, 2010

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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
2565-A6U	E5500	2.80	2GB	19.0" WXGA+	1.3M	GMA X4500	320GB ²	DVD±RW	11b/g/n ¹²	USB	ES50	Pro 32	None	Jun 10
2565-A7U	E7500	2.93	4GB	19.0" WXGA+	1.3M	GMA X4500	320GB	DVD±RW	11b/g/n	USB	ES50	Pro 64	None	Jun 10

- **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 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	All-In-One PC for business customers Intel® Pentium® Processor E5500 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°) Bay ① 3.5", 1" high, no access, std disk (desktop) Bay ② slim, .5" high, access, std optical (notebook)			
Implementation	Processor in LGA775 socket													
Memory	2GB or 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 <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													
SATA disk	320GB , SATA 3.0Gb/s, 3.5" wide, 7200 rpm										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 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										Supports ThinkVantage® technologies			
Camera	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	Rear: Three USB 2.0, serial (9-pin), ethernet (RJ-45) Side: Three USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)													
Mini PCI Express	One Mini PCI Express slot													
11b/g/n ¹²	11b/g/n wireless ¹³ , Mini PCIe adapter, Broadcom® BCM43225										ENERGY STAR® 5.0-compliant RoHS-compliant			
Audio	High Definition (HD) Audio, CONEXANT™ CX20582 codec													
Speaker	Two internal speakers (2 watt x 2)													
IEEE 1394	None													
Ethernet	Gigabit ethernet on planar, Realtek® RTL8111DL													
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 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⇨ 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), 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 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				
					ThinkCentre A70z Performance Stand					57Y4277				
					More accessories on O-A70Z sheet									
Preloaded applications⁵ (all OSes; only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• ThinkVantage System Update• ThinkVantage Power Manager• ThinkVantage Toolbox• Lenovo Online Data Backup• Norton™ Internet Security 2011 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Skype™ for Windows• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)					Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
 US models announced June 1, 2010

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Partial list of accessories supported on ThinkCentre A70z AIO

Memory

AIO 1165 use desktop 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

AIO 0401/2565 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

More information at

www.lenovo.com/support/desktopmemorycompatibility**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
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 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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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.**Stand**

ThinkCentre A70z Performance Stand	57Y4277	ann 11/17/09
ThinkCentre Extend Arm	57Y4352	ann 07/06/10

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Kensington MicroSaver Cable Lock ⁵⁶	73P2582	ann 12/29/03
Lenovo Security Cable Lock	57Y4303	ann 08/24/10

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

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

**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

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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*Personal Systems Reference
Lenovo® ThinkStation® Workstations*

October 2010 - Version 386



ThinkStation 20 Series

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ThinkStation.



Lenovo ThinkStation E20
with Intel HD Graphics



Lenovo ThinkStation E20
with ThinkVision® L2440p (4420HB2)



Lenovo ThinkStation E20



Lenovo ThinkStation Graphics Card Option
NVIDIA® Quadro® NVS 295 (45K1669)



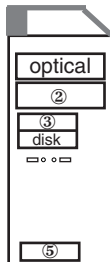
Lenovo ThinkStation Graphics Card Option
NVIDIA Quadro FX 380 (45K1670)



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	ES50	Pro64	No	Feb 10
4222-36U	4x5	i3-530	2.93	2	2x2GB	1333MHz	No	1x500GB	3.5"	No	DVD±RW	No	FX380	ES50	Pro64	No	Feb 10
4222-37U	4x5	i5-650	3.20	2	2x2GB	1333MHz	No	1x500GB	3.5"	No	DVD±RW	No	FX580	ES50	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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

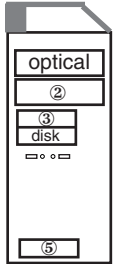
Processor	Intel Pentium® Processor G6950 with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, and 3MB cache or Intel Core™ i3 Processor i3-530 with dual-core, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel 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																												
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		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																									
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		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	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)		Supports ThinkVantage® technologies																									
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		GREENGUARD® certified RoHS-compliant ENERGY STAR® 5.0-compliant																									
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)		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• 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																									
Rack mount	Rack shelf support																											
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		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>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				1GB PC3-10600 DDR3 Non-ECC UDIMM	57Y4389	2GB PC3-10600 DDR3 Non-ECC UDIMM	57Y4390	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			
1GB PC3-10600 DDR3 Non-ECC UDIMM	57Y4389																											
2GB PC3-10600 DDR3 Non-ECC UDIMM	57Y4390																											
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																											
Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• ThinkVantage Toolbox• Norton™ Internet Security (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• Corel DVD MovieFactory® (DVD±RW)		Other accessories at lenovo.com/accessories																										

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See footnotes for important warranty information
US models announced August 3, 2010

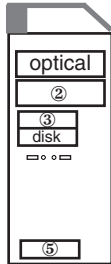
Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	ECC memory	Disk(s)	Disk size	Pre-conf RAID	SATA optical	1394 adptr	Graphics adapter(s)	ENERGY STAR 5.0	Win7 preload	Global (G) GMP (P)	Avail date
4220-34U	4x5	i3-530	2.93	2	2x2GB	1333MHz		1x500GB ²	3.5"	No	DVD±RW	No	FX380	ES50	Pro64	No	Feb 10
4220-35U	4x5	G6950	2.80	2	1x2GB	1333MHz		1x500GB	3.5"	No	DVD±RW	No	FX380	ES50	Pro64	No	Feb 10
4220-36U	4x5	X3430	2.40	4	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	No	FX580	ES50	Pro64	No	Feb 10
4220-37U	4x5	X3440	2.53	4	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	No	FX1800	ES50	Pro64	No	Feb 10

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- **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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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)																
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												
- Genuine Windows® 7 Professional 64					2GB PC3-10600 DDR3 Non-ECC UDIMM 57Y4390												
Preloaded applications⁵ (only some listed)					4GB PC3-10600 DDR3 ECC UDIMM 57Y4138												
• Rescue and Recovery™					1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
• Microsoft Office 2010 preloaded; purchase product key to activate					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 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	Diskette or Media reader	Graphics adapter(s)	ENERGY STAR 5.0	Win7 preload	Global	Avail date
4220-82U	4x5	X3440	2.53	4	2x2GB	1333MHz	ECC	1x500GB ²	3.5"	No	DVD±RW	Media	FX580	ES50	Pro64	Global	Aug 10
4220-83U	4x5	X3440	2.53	4	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	Media	FX1800	ES50	Pro64	Global	Aug 10
4220-84U	4x5	X3470	2.93	4	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	Media	FX1800	ES50	Pro64	Global	Aug 10
4220-85U	4x5	i5-650	3.20	2	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	Media	FX580	ES50	Pro64	Global	Aug 10
4220-86U	4x5	i5-650	3.20	2	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	Media	FX1800	ES50	Pro64	Global	Aug 10
4220-87U	4x5	i5-670	3.46	2	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	Media	FX1800	ES50	Pro64	Global	Aug 10
4220-88U	4x5	i5-650	3.20	2	2x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	Media	Intel HD	ES50	Pro64	Global	Aug 10

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- **These models have a 3-year limited warranty¹**
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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 X3440 or X3470 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		<div>Bay ① 5.25", 1.6" high, access, std optical</div> <div>Bay ② 5.25", 1.6" high, access, open</div> <div>Bay ③ 3.5", 1" high, access, 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>																						
Memory	4GB std, 16GB max, PC3-10600 1333MHz DDR3*, UDIMM, ECC four 240-pin DIMM sockets																								
Graphics	<i>Some:</i> Intel HD Graphics in processor, one analog VGA DB-15 connector and one DisplayPort connector on rear, supports dual independent display <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		<div>Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max)</div> <div>Slot 2: half-length,full-height, PCIe 2.0 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 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		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)																						
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)		Supports ThinkVantage® technologies																						
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in) <i>Intel HD model(s):</i> one analog VGA DB-15 connector, one DisplayPort connector																								
IEEE 1394 adptr	None		GREENGUARD® certified RoHS-compliant ENERGY STAR® 5.0-compliant																						
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																								
Speaker	Internal speaker for business audio		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	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		<div>Accessories</div> <table><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>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> <div>More accessories on O-CAD sheet</div> <div>Other accessories at lenovo.com/accessories</div>			2GB PC3-10600 DDR3 ECC UDIMM	43R2033	4GB PC3-10600 DDR3 ECC UDIMM	57Y4138	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
2GB PC3-10600 DDR3 ECC UDIMM	43R2033																								
4GB PC3-10600 DDR3 ECC UDIMM	57Y4138																								
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NVIDIA Quadro 512MB NVS 450	57Y4398																								
NVIDIA Quadro 256MB FX 380	45K1670																								
NVIDIA Quadro 512MB FX 580	45K1671																								
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 <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 (30 days of virus definitions)• Adobe® Reader®• Adobe Flash® Player• Microsoft Office 2010 preloaded; purchase product key to activate• Corel® Burn.Now™ (DVD±RW)• Corel DVD MovieFactory® (DVD±RW)																									

ThinkStation® E20 (4220) - Windows XP

Personal Systems Reference (PSREF)

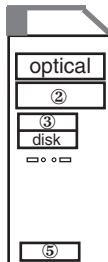
Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	ECC memory	Disk(s)	Disk size	Pre-conf RAID	SATA optical	1394 adptr	Graphics adapter(s)	ENERGY STAR 5.0	Preload	Global	Avail date
4220-65U	4x5	X3450	2.66	4	1x2GB	1333MHz	ECC	1x500GB ²	3.5"	No	DVD±RW	1394	FX580	ES50	XP Pro	No	May 10
4220-66U	4x5	i5-650	3.20	2	1x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	1394	FX380	ES50	XP Pro	No	May 10
4220-67U	4x5	i5-670	3.46	2	1x2GB	1333MHz	ECC	1x500GB	3.5"	No	DVD±RW	1394	FX1800	ES50	XP Pro	No	May 10

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- *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 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 • Rack shelf support • Recessed power button 	
Implementation				
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			
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		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) 	
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		
- Genuine Windows® XP Professional 32-bit (preinstalled via downgrade rights in Windows 7 Professional 64-bit)		2GB PC3-10600 DDR3 ECC UDIMM	43R2033	
		4GB PC3-10600 DDR3 ECC UDIMM	57Y4138	
		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		
Preloaded applications⁵ (only some listed)		Other accessories at lenovo.com/accessories		
<ul style="list-style-type: none"> • Rescue and Recovery™ • ThinkVantage Toolbox • Norton™ Internet Security (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) 				
				GREENGUARD® certified RoHS-compliant 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
4215-11U	4x5	i5-660	3.33	2	2x2GB	1333MHz	ECC	1x500GB ²	3.5"	No	DVD±RW	1394	FX1800	ES50	Pro64	G P	Feb 10

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- **True workstation-level performance at incredibly low price point**
- **High Reliability with Independent Software Vendors (ISV) certified applications and ECC memory support**
- **This small and medium business (SMB) model 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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor	Intel Core™ i5 Processor i5-660 with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology (up to 3.60GHz at max turbo mode), Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB 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• Recessed power button							
Implementation	Processor in LGA1156 socket, up to one processor										
Memory	4GB std, 16GB max*, UDIMM, PC3-10600 1333MHz DDR3, ECC** , four 240-pin DIMM sockets * Max memory is 16GB for ECC models and 8GB for Non-ECC models ** ECC and non-ECC DIMMs cannot be mixed										
Graphics	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			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							
Media reader	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(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)			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)							
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 in 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										
Preloaded operating system²⁰				Accessories							
- Genuine Windows® 7 Professional 64				2GB PC3-10600 DDR3 ECC UDIMM				43R2033			
				4GB PC3-10600 DDR3 ECC UDIMM				57Y4138			
Preloaded applications⁵ (only some listed)				250GB SATA 3.0Gb/s Disk (7200 rpm)				41N3015			
• Rescue and Recovery™				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990			
• ThinkVantage Toolbox				1TB SATA 3.0Gb/s Disk (7200 rpm)				45J7918			
• Norton™ Internet Security (30 days of virus definitions)				Blu-ray™ Burner SATA 1.5Gb/s				45K1675			
• Adobe® Reader®				NVIDIA Quadro 256MB NVS 295				45K1669			
• Adobe Flash® Player				NVIDIA Quadro 512MB NVS 450				57Y4398			
• Microsoft Office 2010 preloaded; purchase product key to activate				NVIDIA Quadro 256MB FX 380				45K1670			
• Corel® Burn.Now™ (DVD±RW)				NVIDIA Quadro 512MB FX 580				45K1671			
• Corel DVD MovieFactory® (DVD±RW)				More accessories on O-CAD sheet							
				Other accessories at lenovo.com/accessories							
Supports ThinkVantage® technologies											
GREENGUARD® certified RoHS-compliant 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											

Partial list of accessories supported on ThinkStation E20

Memory⁶³

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
2GB PC3-10600 DDR3 ECC UDIMM	43R2033	ann 03/31/09
4GB PC3-10600 DDR3 ECC UDIMM	57Y4138	ann 08/04/09

⁵³ Mixing of ECC and non-ECC DIMMs is not supported

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

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 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 L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
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

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
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
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
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 C20 (left)
Lenovo ThinkStation C20x (right)



Lenovo ThinkStation C20x



Lenovo ThinkStation C20/C20x Stack



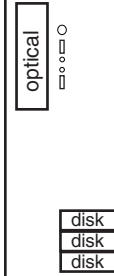
Lenovo ThinkStation Graphics Card Option
NVIDIA® Quadro® NVS 450 (57Y4398)



Multi-monitor Display with Optional Lenovo ThinkVision Monitor and Dual NVIDIA Quadro NVS 450
(Both Lenovo ThinkStation C20/C20x)

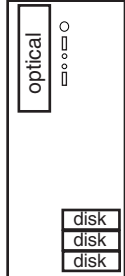
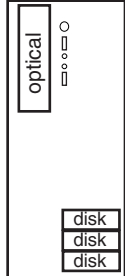
Type-model	Slot x bay	Processor(s)	GHz	Max Turbo GHz	Memory DIMMs	Memory type	Disk(s)	Disk size	Pre-conf RAID	Chassis intr switch	Graphics adapter(s)	ENERGY STAR 5.0	Global	Win7 preload	Avail date
4265-46U 6x4	1 x	E5620	2.40	2.66	2 x 2GB	UDIMM	1x500GB ² SATA	3.5"	No	Switch	1 x FX580	Pending	None	Pro 64	Jun 10
4265-54U 6x4	1 x	E5620	2.40	2.66	2 x 2GB	UDIMM	1x300GB SATA	2.5"	No		1 x FX1800	Pending	None	Pro 64	Jun 10
4265-55U 6x4	1 x	E5503	2.00		2 x 2GB	UDIMM	1x500GB SATA	3.5"	No		1 x FX380	Pending	None	Pro 64	Jun 10
4265-72U 6x4	1 x	E5507	2.26		2 x 2GB	UDIMM	1x500GB SATA	3.5"	No		1 x FX580	Pending	None	Pro 64	Jun 10

- **High performance workstation with smallest-possible form factor**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5503 with dual-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 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 E5620 with quad-core , 5.86GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 12MB cache Two LGA1366 sockets			Tower <ul style="list-style-type: none">• Rack-mountable to 3U• Raven black color; metal case• 5.1"W x 17.5"D x 16.8"H• 130mm W x 444mm D x 427mm H• 40.7 lb (18.5kg) max configuration• 24-liter• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support or optional rail kit					
Implementation	Two LGA1366 sockets								
Memory	4GB std, 24GB max, UDIMM, PC3-10600 1333MHz DDR3**, ECC , 6-channel capable, six 240-pin DIMM sockets*** ** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller *** Over three DIMMs requires dual processors			Bay ① 5.25", 1.6" high, external, std optical Bay ② 3.5", 1" high, internal, std disk Bay ③ 3.5", 1" high, internal, opt disk Bay ④ 3.5", 1" high, internal, opt disk					
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			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 x16 (x4 electrical) Slot 6: half-length, full-height, 32-bit PCI 2.3 * Adapters >75W use auxiliary power connector(s) from PSU					
Diskette drive	None						SECURITY		
Media reader	None						<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)• Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse• USB port disablement (front or all)• <i>Some:</i> Chassis intrusion switch		
SATA disk(s)	<i>Some:</i> 500GB , SATA 3.0Gb/s, 7200 rpm, 3.5" <i>Some:</i> 300GB , SATA 3.0Gb/s, 10000 rpm, 2.5" Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s								
SATA DVD±RW	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, one SATA connector for optical, RAID ⁰ 0, 1, 5 support								
Disk controller									
Chipset	Intel 5520 Chipset , Intel ICH10R, 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, one 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	800 watts with 80mm side-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified								
Cooling	Five fans standard (power supply, first processor, one on front, two on rear)								
Rack mount	Rack shelf support or optional sliding rack mount rail kit support						Supports ThinkVantage® technologies		
							GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0 -compliant		
Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64				Accessories 2GB PC3-10600 DDR3 ECC UDIMM 43R2033 4GB PC3-10600 DDR3 ECC UDIMM 57Y4138 Blu-ray™ Burner SATA 1.5Gb/s 45K1675 ThinkVision® L2440p Wide 24" Monitor 4420HB2 ATI™ FirePro™ 1GB V7750 51J0511 More accessories on O-MAD sheet					
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)				Other accessories at lenovo.com/accessories			LIMITED WARRANTY ¹ <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⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378		

See footnotes for important warranty information
US models announced June 15, 2010

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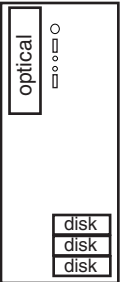
Type-model	Slot x bay	Processor(s)	GHz	Max Turbo GHz	Memory DIMMs	Memory type	Disk(s)	Disk size	Pre-conf RAID	SATA optical	Chassis intr switch	Graphics adapter(s)	Global Win7 preload	Avail date					
4262-14U	6x4	2 x X5667	3.06	3.46	6 x 2GB	UDIMM	2x128GB ² SSD	1.8"	0	DVD±RW	None	2 x NVS450	None	Pro 64 Jun 10					
<ul style="list-style-type: none">• High performance workstation with smallest-possible form factor• Environmentally friendly, cool, and quiet with rock solid engineering• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)																			
Processor(s)	Up to two processors, two processors standard, Intel® Xeon® Processor X5667 with quad-core , 6.4GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache								<div>Tower<ul style="list-style-type: none">• Rack-mountable to 3U• Raven black color; metal case• 5.1"W x 17.5"D x 16.8"H• 130mm W x 444mm D x 427mm H• 40.7 lb (18.5kg) max configuration• 24-liter• 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>Bay ① 5.25", 1.6" high, external, std optical Bay ② 3.5", 1" high, internal, std disk Bay ③ 3.5", 1" high, internal, std disk Bay ④ 3.5", 1" high, internal, opt disk</div> <div>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 x16 (x4 electrical) Slot 6: half-length, full-height, 32-bit PCI 2.3 * Adapters >75W use auxiliary power connector(s) from PSU</div>										
Implementation	Two LGA1366 sockets																		
Memory	12GB std, 24GB max, UDIMM, PC3-10600 1333MHz DDR3, ECC , 6-channel capable, six 240-pin DIMM sockets** ** Over three DIMMs requires dual processors																		
Graphics	NVIDIA® Quadro® NVS 450 , PCIe x16 adapter, 512MB, four DisplayPort, 35W																		
Diskette drive	None																		
Media reader	None																		
SATA disk(s)	128GB Solid State Drive (SSD), SATA 3.0Gb/s, 1.8"																		
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s																		
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, one SATA connector for optical, RAID [®] 0, 1, 5 support																		
Chipset	Intel 5520 Chipset , Intel ICH10R, Winbond® W83627DHG-P Super I/O																		
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), Eight USB 2.0, eSATA, one 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																		
Rear ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), Eight USB 2.0, eSATA, one 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	800 watts with 80mm side-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified																		
Cooling	Five fans standard (power supply, first processor, one on front, two on rear) <i>Dual processors model(s):</i> One additional processor fan for second processor																		
Rack mount	Rack shelf support or optional sliding rack mount rail kit support																		
Preloaded operating system²⁰					Accessories														
- Genuine Windows® 7 Professional 64					2GB PC3-10600 DDR3 ECC UDIMM										43R2033				
Preloaded applications⁵ (only some listed)					4GB PC3-10600 DDR3 ECC UDIMM										57Y4138				
• Rescue and Recovery™					Blu-ray™ Burner SATA 1.5Gb/s										45K1675				
• ThinkVantage Toolbox					ThinkVision® L2440p Wide 24" Monitor										4420HB2				
• Norton™ Internet Security (30 days of virus definitions)					ATI™ FirePro™ 1GB V7750										51J0511				
• Adobe® Reader®					More accessories on O-MAD sheet														
• Adobe Flash® Player					Other accessories at lenovo.com/accessories														
• Microsoft Office 2010 preloaded; purchase product key to activate																			
• 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)• Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse• 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">⇒ 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)⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378																			

See footnotes for important warranty information
US model announced June 15, 2010

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Type-model	Slot x bay	Processor(s)	GHz	Max Turbo GHz	Memory DIMMs	Disk(s)	Disk size	Pre-conf RAID	SATA optical	Chassis intr switch	Graphics adapter(s)	ENERGY STAR 5.0	Global	Win7 preload	Avail date
4263-12U 6x4	1 x	E5507	2.26		3 x 2GB	1x500GB ² SATA	3.5"	No	DVD±RW	Switch		Pending	Global	Pro 64	Jun 10
4263-22U 6x4	2 x	E5640	2.66	2.93	6 x 1GB	1x300GB SATA	2.5"	No	DVD±RW	Switch	1 x NVS450	Pending	Global	Pro 64	Jun 10
4263-23U 6x4	2 x	E5620	2.40	2.66	6 x 1GB	1x150GB SATA	2.5"	No	DVD	Switch	1 x NVS295	Pending	Global	Pro 64	Jun 10
4263-67U 6x4	1 x	X5650	2.66	3.06	2 x 2GB	1x500GB SATA	3.5"	No	DVD±RW		1 x FX380	Pending		Pro 64	Jun 10
4263-72U 6x4	2 x	X5650	2.66	3.06	6 x 2GB	1x150GB SATA	2.5"	No	DVD	Switch	2 x NVS295	Pending	Global	Pro 64	Jun 10
4263-79U 6x4	1 x	E5507	2.26		2 x 2GB	1x500GB SATA	3.5"	No	DVD±RW		1 x FX380	Pending		Pro 64	Jun 10
4263-81U 6x4	1 x	E5620	2.40	2.66	2 x 2GB	1x500GB SATA	3.5"	No	DVD±RW		1 x FX580	Pending		Pro 64	Jun 10
4263-82U 6x4	1 x	E5630	2.53	2.80	2 x 2GB	1x500GB SATA	3.5"	No	DVD±RW		1 x FX1800	Pending		Pro 64	Jun 10

- **High performance workstation with smallest-possible form factor**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor(s)	Up to two processors, one or two processors standard, Intel® Xeon® Processor E5507 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5620, E5630, or E5640 with quad-core , 5.86GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 12MB cache or Intel Xeon Processor X5650 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"> • Rack-mountable to 3U • Raven black color; metal case • 5.1"W x 17.5"D x 16.8"H • 130mm W x 444mm D x 427mm H • 40.7 lb (18.5kg) max configuration • 24-liter • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support or optional rail kit 
Implementation	Two LGA1366 sockets	
Memory	4GB, 6GB, or 12GB std, 24GB max, UDIMM, PC3-10600 1333MHz DDR3**, ECC , 6-channel capable, six 240-pin DIMM sockets*** ** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller *** Over three DIMMs requires dual processors	Bay ① 5.25", 1.6" high, external, std optical Bay ② 3.5", 1" high, internal, std disk Bay ③ 3.5", 1" high, internal, opt disk Bay ④ 3.5", 1" high, internal, opt disk
Graphics	<i>Some:</i> NVIDIA® Quadro® NVS 295 , PCIe x16 adapter, 256MB, two DisplayPort, 23W <i>Some:</i> NVIDIA Quadro NVS 450 , PCIe x16 adapter, 512MB, four DisplayPort, 35W <i>Some:</i> NVIDIA Quadro FX 380 , 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	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 x16 (x4 electrical) Slot 6: half-length, full-height, 32-bit PCI 2.3 * Adapters >75W use auxiliary power connector(s) from PSU
Diskette drive	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) • Security slot (in rear for optional Kensington® Microsaver® cable) • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse • USB port disablement (front or all) • <i>Some:</i> Chassis intrusion switch
Media reader	None	
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" <i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive	
SATA DVD	<i>Some:</i> Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s	
SATA DVD±RW	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, one SATA connector for optical, RAID ⁵ 0, 1, 5 support	
Disk controller		
Chipset	Intel 5520 Chipset , Intel ICH10R, 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, one 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	Supports ThinkVantage® technologies
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black	GREENGUARD® certified
Mouse	Optical Wheel Mouse (USB connector), black	RoHS-compliant
Power supply	800 watts with 80mm side-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified	Pending: ENERGY STAR® 5.0-compliant
Cooling	Five fans standard (power supply, first processor, one on front, two on rear) <i>Dual processors model(s):</i> One additional processor fan for second processor	LIMITED WARRANTY¹
Rack mount	Rack shelf support or optional sliding rack mount rail kit support	<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 ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378
Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications⁵ (only some listed) • Microsoft Office 2010 preloaded; purchase product key to activate		Accessories 2GB PC3-10600 DDR3 ECC UDIMM 43R2033 4GB PC3-10600 DDR3 ECC UDIMM 57Y4138 More accessories on O-MAD sheet Other accessories at lenovo.com/accessories

Type-model	Slot x bay	Processor(s)	GHz	Max Turbo GHz	Memory DIMMs	Disk(s)	Disk size	Pre-conf RAID	SATA optical	Chassis intr switch	Graphics adapter(s)	ENERGY STAR 5.0	Global	Win7 preload	Avail date
4263-61U 6x4	1 x	E5620	2.40	2.66	2 x 2GB	1x150GB ²	SATA 2.5"	No	DVD±RW	Switch		Pending	Global	Pro 64	Jun 10
4263-63U 6x4	1 x	X5650	2.66	3.06	1 x 4GB	1x150GB	SATA 2.5"	No	DVD±RW	Switch		Pending	Global	Pro 64	Jun 10
4263-71U 6x4	2 x	E5620	2.40	2.66	6 x 2GB	1x250GB	SATA 3.5"	No	DVD	Switch	2xNVS295	Pending	Global	Pro 64	Jun 10

- **High performance workstation with smallest-possible form factor**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor(s)	Up to two processors, one or two processors standard, Intel® Xeon® Processor E5620 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 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">• Rack-mountable to 3U• Raven black color; metal case• 5.1"W x 17.5"D x 16.8"H• 130mm W x 444mm D x 427mm H• 40.7 lb (18.5kg) max configuration• 24-liter• 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>disk</div><div>disk</div><div>disk</div></div> <div>Bay ① 5.25", 1.6" high, external, std optical</div> <div>Bay ② 3.5", 1" high, internal, std disk</div> <div>Bay ③ 3.5", 1" high, internal, opt disk</div> <div>Bay ④ 3.5", 1" high, internal, opt disk</div> <div>Slot 1: half-length, full-height, PCIe x1</div> <div>Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max)</div> <div>Slot 3: full-length, full-height, 32-bit PCI 2.3</div> <div>Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max)</div> <div>Slot 5: full-length, full-height, PCIe x16 (x4 electrical)</div> <div>Slot 6: half-length, full-height, 32-bit PCI 2.3</div> <div>* Adapters >75W use auxiliary power connector(s) from PSU</div>
Implementation	Two LGA1366 sockets		
Memory	4GB or 12GB std, 96GB max (Pending availability of 16GB RDIMM), RDIMM, PC3-10600 1333MHz DDR3**, ECC , 6-channel capable, six 240-pin DIMM sockets*** ** System automatically clocks down for processors with 1066MHz DDR3 memory controller *** Over three DIMMs requires dual processors		
Graphics	<i>Some:</i> NVIDIA® Quadro® NVS 295 , PCIe x16 adapter, 256MB, two DisplayPort, 23W		
Diskette drive	None		
Media reader	None		
SATA disk(s)	<i>Some:</i> 250GB , SATA 3.0Gb/s, 7200 rpm, 3.5" <i>Some:</i> 150GB , SATA 3.0Gb/s, 10000 rpm, 2.5"		
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		
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, one SATA connector for optical, RAID [®] 0, 1, 5 support		
Chipset	Intel 5520 Chipset , Intel ICH10R, 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, one 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	800 watts with 80mm side-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified		
Cooling	Five fans standard (power supply, first processor, one on front, two on rear) <i>Dual processors model(s):</i> One additional processor fan for second processor <i>4GB RDIMM model(s):</i> One additional memory fan for single processor model(s), Two additional memory fans for dual processors model(s)		
Rack mount	Rack shelf support or optional sliding rack mount rail kit support		
Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64			
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Norton™ Internet Security (30 days of virus definitions)• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Corel® WinDVD® (DVD±RW)			
Accessories 2GB PC3-10600 DDR3 ECC RDIMM 57Y4425 4GB PC3-10600 DDR3 ECC RDIMM 57Y4426 Blu-ray™ Burner SATA 1.5Gb/s 45K1675 ThinkVision® L2440p Wide 24" Monitor 4420HB2 ATI™ FirePro™ 1GB V7750 51J0511 More accessories on O-MAD sheet 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)• Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse• USB port disablement (front or all)• Chassis intrusion switch			
Supports ThinkVantage® technologies			
GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0 -compliant			
LIMITED WARRANTY ¹ <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⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378			

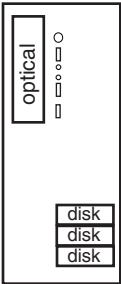
See footnotes for important warranty information
US models announced June 15, 2010

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Type-model	Slot x bay	Processor(s)	GHz	Max Turbo GHz	Memory DIMMs	Memory type	Disk(s)	Disk size	Pre-conf RAID	1394 adptr	Chassis intr switch	Graphics adapter(s)	ENERGY STAR 5.0	Win7 preload	Avail date
4272-35U	6x4	1 x E5630	2.53	2.80	2 x 2GB	UDIMM	1x300GB ² SAS	3.5"	No	1394	None	1 x FX1800	Pending	Pro64	Jun 10
<ul style="list-style-type: none">• High performance workstation with smallest-possible form factor• Environmentally friendly, cool, and quiet with rock solid engineering• This small and medium business (SMB) model is part of the US TopSeller™ Program• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5630 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									Tower <ul style="list-style-type: none">• Rack-mountable to 3U• Raven black color; metal case• 5.1"W x 17.5"D x 16.8"H• 130mm W x 444mm D x 427mm H• 40.7 lb (18.5kg) max configuration• 24-liter• 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>disk</div><div>disk</div><div>disk</div></div>					
Implementation	Two LGA1366 sockets														
Memory	4GB std, 48GB max, UDIMM, PC3-10600 1333MHz DDR3** , ECC , 6-channel capable, twelve 240-pin DIMM sockets*** ** System automatically clocks down for processors with 1066MHz DDR3 memory controller *** Over six DIMMs requires dual processors														
Graphics	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									Bay ① 5.25", 1.6" high, external, std optical Bay ② 3.5", 1" high, internal, std disk Bay ③ 3.5", 1" high, internal, opt disk Bay ④ 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 x16 (x4 electrical) Slot 6: half-length, full-height, 32-bit PCI 2.3 * Adapters >75W use auxiliary power connector(s) from PSU					
Media reader	None														
SATA disk(s)	300GB , SAS 3.0Gb/s, 15000 rpm, 3.5"														
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s														
Disk controller	3 SATA connectors for optical, SATA 3.0Gb/s, integrated in ICH10; 5 SATA/SAS ⁴ connectors for disks, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID ⁰ 0, 1, 5, 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), 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	Two 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	800 watts with 80mm side-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified														
Cooling	Five fans standard (power supply, first processor, one on front, two on rear)														
Rack mount	Rack shelf support or optional sliding rack mount rail kit support														
Preloaded operating system²⁰			Accessories												
- Genuine Windows® 7 Professional 64			2GB PC3-10600 DDR3 ECC UDIMM			43R2033									
Preloaded applications⁵ (only some listed)			4GB PC3-10600 DDR3 ECC UDIMM			57Y4138									
• Rescue and Recovery™			Blu-ray™ Burner SATA 1.5Gb/s			45K1675									
• ThinkVantage Toolbox			ThinkVision® L2440p Wide 24" Monitor			4420HB2									
• Norton™ Internet Security (30 days of virus definitions)			ATI™ FirePro™ 1GB V7750			51J0511									
• Adobe® Reader®			More accessories on O-MAD sheet												
• Adobe Flash® Player			Other accessories at lenovo.com/accessories												
• Microsoft Office 2010 preloaded; purchase product key to activate															
• Roxio MyDVD® (DVD±RW)															
• Corel® WinDVD® (DVD±RW)															
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 ➤ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378															

See footnotes for important warranty information
 US model announced June 15, 2010

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Type-model	Slot x bay	Processor(s)	GHz	Max Turbo GHz	Memory DIMMs	Memory type	Disk(s)	Disk size	Pre-conf RAID	SATA optical	1394 adptr	Graphics adapter(s)	Win7 preload	Avail date									
4266-11U	6x4	2 x X5680	3.33	3.60	12 x 2GB	RDIMM	2x128GB ² SSD	1.8"	0	Blu-ray	1394	1 x NVS450 + Tesla	Pro 64	Jun 10									
<ul style="list-style-type: none">• High performance workstation with smallest-possible form factor• Environmentally friendly, cool, and quiet with rock solid engineering• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)																							
Processor(s)	Up to two processors, two processors standard, Intel® Xeon® Processor X5680 with six-core , 6.4GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache										Tower <ul style="list-style-type: none">• Rack-mountable to 3U• Raven black color; metal case• 5.1"W x 17.5"D x 16.8"H• 130mm W x 444mm D x 427mm H• 40.7 lb (18.5kg) max configuration• 24-liter• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support or optional rail kit 												
Implementation	Two LGA1366 sockets																						
Memory	24GB std, 192GB max (Pending availability of 16GB RDIMM), RDIMM, PC3-10600 1333MHz DDR3, ECC , 6-channel capable, twelve 240-pin DIMM sockets** ** Over six DIMMs requires dual processors										Bay ① 5.25", 1.6" high, external, std optical Bay ② 3.5", 1" high, internal, std disk Bay ③ 3.5", 1" high, internal, std disk Bay ④ 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 x16 (x4 electrical) Slot 6: half-length, full-height, 32-bit PCI 2.3 * Adapters >75W use auxiliary power connector(s) from PSU												
Graphics	NVIDIA® Quadro® NVS 450 , PCIe x16 adapter, 512MB, four DisplayPort, 35W																						
GPU Computing	NVIDIA Tesla™ C1060 , PCIe x16 adapter, 4GB, IEEE 754 single-precision and double-precision floating point, 188W																						
Diskette drive	None																						
Media reader	None																						
SATA disk(s)	128GB Solid State Drive (SSD), SATA 3.0Gb/s, 1.8"																						
SATA DVD±RW	Blu-ray™ Burner, SATA 1.5Gb/s																						
Disk controller	3 SATA connectors for optical, 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, 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), 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										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)• Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse• Serial port I/O control• USB port disablement (front or all)												
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	Two 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	800 watts with 80mm side-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified																						
Cooling	Five fans standard (power supply, first processor, one on front, two on rear) <i>Dual processors model(s):</i> One additional processor fan for second processor																						
Rack mount	Rack shelf support or optional sliding rack mount rail kit support																						
Preloaded operating system²⁰					Accessories					Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant <i>Pending: ENERGY STAR® 5.0-compliant</i> 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)⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378													
- Genuine Windows® 7 Professional 64					2GB PC3-10600 DDR3 ECC RDIMM										57Y4425								
Preloaded applications⁵ (only some listed)					4GB PC3-10600 DDR3 ECC RDIMM										57Y4426								
• Rescue and Recovery™					Blu-ray™ Burner SATA 1.5Gb/s										45K1675								
• ThinkVantage Toolbox					ThinkVision® L2440p Wide 24" Monitor										420HB2								
• Norton™ Internet Security (30 days of virus definitions)					ATI™ FirePro™ 1GB V7750					51J0511													
• Adobe® Reader®					Other accessories at lenovo.com/accessories																		
• Adobe Flash® Player																							
• Microsoft Office 2010 preloaded; purchase product key to activate																							
• Roxio MyDVD® (Blu-ray)																							
• Corel® WinDVD® (Blu-ray)																							
• Ulead® DVD MovieFactory® (Blu-ray)																							

See footnotes for important warranty information
US model announced June 15, 2010

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Type-model	Slot x bay	Processor(s)	GHz	Max Turbo GHz	Memory DIMMs	Disk(s)	Disk size	Pre-conf RAID	1394 adptr	SATA optical	Chassis intr switch	Graphics adapter(s)	ENERGY STAR 5.0	Global	Avail date
4269-11U 6x4	1 x	E5640	2.66	2.93	2 x 2GB	1x300GB ² SAS	3.5"	No	1394	DVD±RW		1 x FX1800	Pending		Jun 10
4269-12U 6x4	1 x	E5507	2.26		2 x 2GB	1x300GB SAS	3.5"	No	1394	DVD±RW		1 x FX1800	Pending		Jun 10
4269-13U 6x4	1 x	X5650	2.66	3.06	2 x 2GB	1x300GB SAS	3.5"	No	1394	DVD±RW		1 x FX580	Pending		Jun 10
4269-17U 6x4	2 x	X5667	3.06	3.46	6 x 2GB	1x450GB SAS	3.5"	No		DVD±RW	Switch		Pending	Global	Jun 10
4269-19U 6x4	2 x	X5677	3.46	3.73	6 x 2GB	1x300GB SAS	3.5"	No		DVD±RW	Switch		Pending	Global	Jun 10
4269-21U 6x4	2 x	X5650	2.66	3.06	6 x 2GB	1x300GB SAS	3.5"	No		DVD±RW	Switch		Pending	Global	Jun 10
4269-22U 6x4	2 x	E5640	2.66	2.93	6 x 2GB	1x300GB SAS	3.5"	No		DVD±RW	Switch		Pending	Global	Jun 10

- **High performance workstation with smallest-possible form factor**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor(s)	Up to two processors, one or two processors standard, Intel® Xeon® Processor E5507 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 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, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 12MB cache or Intel Xeon Processor X5667 or X5677 with quad-core , 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache or Intel Xeon Processor X5650 with six-core , 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache Two LGA1366 sockets			Tower <ul style="list-style-type: none">• Rack-mountable to 3U• Raven black color; metal case• 5.1"W x 17.5"D x 16.8"H• 130mm W x 444mm D x 427mm H• 40.7 lb (18.5kg) max configuration• 24-liter• 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>disk</div><div>disk</div><div>disk</div></div> <div>Bay ① 5.25", 1.6" high, external, std optical</div> <div>Bay ② 3.5", 1" high, internal, std disk</div> <div>Bay ③ 3.5", 1" high, internal, opt disk</div> <div>Bay ④ 3.5", 1" high, internal, opt disk</div>		
Implementation	Two LGA1366 sockets			Slot 1: half-length, full-height, PCIe x1		
Memory	4GB or 12GB std, 48GB max, UDIMM, PC3-10600 1333MHz DDR3**, ECC , 6-channel capable, twelve 240-pin DIMM sockets*** ** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller *** Over six DIMMs requires dual processors			Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max)		
Graphics	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 **** Only two display connectors are active at a time			Slot 3: full-length, full-height, 32-bit PCI 2.3		
Diskette drive	None			Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max)		
Media reader	None			Slot 5: full-length, full-height, PCIe x16 (x4 electrical)		
SATA disk(s)	300GB or 450GB, SAS 3.0Gb/s, 15000 rpm, 3.5"			Slot 6: half-length, full-height, 32-bit PCI 2.3		
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s			* Adapters >75W use auxiliary power connector(s) from PSU		
Disk controller	3 SATA connectors for optical, 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, 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), 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	Some: 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	Two 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	800 watts with 80mm side-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified					
Cooling	Five fans standard (power supply, first processor, one on front, two on rear)					
Rack mount	Dual processors model(s): One additional processor fan for second processor Rack shelf support or optional sliding rack mount rail kit support					
Preloaded operating system ²⁰		Accessories				
- Genuine Windows® 7 Professional 64		2GB PC3-10600 DDR3 ECC UDIMM		43R2033		
Preloaded applications ⁵ (only some listed)		4GB PC3-10600 DDR3 ECC UDIMM		57Y4138		
• Microsoft Office 2010 preloaded; purchase product key to activate		More accessories on O-MAD sheet				
		Other accessories at lenovo.com/accessories				
				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 parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty ⇒ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 800-426-7378		

Partial list of accessories supported on ThinkStation C20 and C20x

Processors⁵⁵

Intel® Xeon® Quad-Core Processor E5507	0A36177	ann	08/24/10
Intel Xeon Quad-Core Processor E5620	0A36179	ann	08/24/10
Intel Xeon Quad-Core Processor E5640	0A36178	ann	08/24/10
Intel Xeon Six-Core Processor X5650	0A36180	ann	08/24/10
Intel Xeon Six-Core Processor X5660	0A36182	ann	08/24/10
Intel Xeon Six-Core Processor X5670	0A36181	ann	08/24/10

⁵⁵ Additional processor must match the existing processor

Memory⁵³

2GB PC3-10600 DDR3 ECC UDIMM ⁵⁴	43R2033	ann	03/31/09
4GB PC3-10600 DDR3 ECC UDIMM ⁵⁴	57Y4138	ann	08/04/09
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 supported

⁵⁴ 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

C20, C20x preconfigured with SATA disks:

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

C20x 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 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
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 L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
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

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 1.5GB FX 4800	45K1674	ann	03/31/09
NVIDIA SLI Connector with FX 4800	55Y8963	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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Rack mount accessories

ThinkStation C-Series, D-Series Rail Kit	57Y4482	ann	09/14/10
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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)



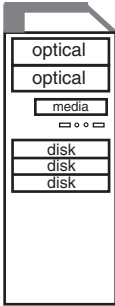
Lenovo ThinkStation Graphics Card Option
NVIDIA® Quadro® FX 380 (45K1670)



Lenovo ThinkStation Graphics Card Option
ATI™ FirePro™ V3700 (51J0509)

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 adptr	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

- **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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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		<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>					
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							
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)		GREENGUARD® certified RoHS-compliant Pending: 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							
IEEE 1394 adptr	None							
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec							
Speaker	Internal speaker for business audio		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	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						2GB PC3-8500 DDR3 ECC UDIMM 51J0504		
						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		
						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 2010 preloaded; purchase product key to activate								
• Roxio® Creator® Business Edition (DVD±RW)								
• Roxio MyDVD® (DVD±RW)								
• Corel® WinDVD® (DVD±RW)								

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

⌘ US model withdrawn effective August 2010

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 (SEV3-2) May 2010

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
Processor										Tower						
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										<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										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, std or 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						
Graphics										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						
Media reader										20-in-1 media reader, internal USB 2.0						
SATA disk(s)										<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						
SATA DVD										<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						
SATA DVD±RW										<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						
Disk controller										<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						
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 <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						
IEEE 1394 adptr										Supports ThinkVantage® technologies						
Audio										GREENGUARD® certified						
Speaker										RoHS-compliant						
Ethernet										<i>Some: ENERGY STAR® 5.0-compliant</i> EPEAT™ Gold rating (only for ES5.0 models)						
Security chip										LIMITED WARRANTY ¹						
Keyboard										⇒ 3-year parts and labor						
Mouse										⇒ 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)						
Power supply										⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty						
Cooling										• Onsite service upgrade options (in eligible locations) ⁷						
Rack mount										• Post warranty maintenance services						
Preloaded operating system ²⁰										⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378						
- <i>Some: Genuine Windows® XP Professional</i> 64-bit (preinstalled via downgrade rights in Windows Vista® Business 64-bit)																
- <i>Some: Genuine Windows Vista Business 32</i>																
- <i>Some: Genuine Windows Vista Business 64</i>																
⚡ <i>Vista models: Vista Premium logo</i>																
Preloaded applications ⁵ (all OSes; only some listed)																
• Rescue and Recovery™																
• McAfee® VirusScan® Plus (30 days of virus definitions)																
• Lenovo® System Toolbox																
• Corel® WinDVD® (DVD±RW)																

See footnotes for important warranty information

US models announced March 31, 2009

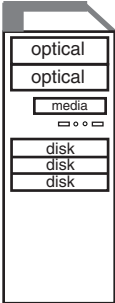
⚡ US models withdrawn effective January 2010 or April 2010

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(SEV1-2) May 2010

	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
	S20	4157-F1U	5x6	W3530	2.80	4	2x2GB	1333MHz	1x500GB	3.5"	No	DVD±RW	Media	1xFX580	None	Pending	Pro64	Jun 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 or W3530 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 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																						
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 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 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)			Accessories <table><tr><td>2GB PC3-8500 DDR3 ECC UDIMM</td><td>51J0504</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			2GB PC3-8500 DDR3 ECC UDIMM	51J0504	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
2GB PC3-8500 DDR3 ECC UDIMM	51J0504																						
2GB PC3-10600 DDR3 ECC UDIMM	43R2033																						
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NVIDIA Quadro FX 580	45K1671																						
ATI™ FirePro™ 1GB V7750	51J0511																						
			GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0-compliant																				
			LIMITED WARRANTY ¹ <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																				

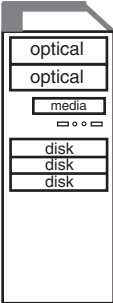
See footnotes for important warranty information

US model announced June 15, 2010; previous models on October 22, 2009

< US model withdrawn effective August 2010

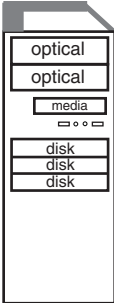
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	ENERGY STAR 5.0	Win7 preload	Avail date
S20	4157-D7U	5x6	E5507	2.26	4	1x2GB	1333MHz	1x500GB ²	3.5"	No	DVD±RW	Media	1xV3700		Pending	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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- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 <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 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 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 <i>Some:</i> 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)	GREENGUARD® certified RoHS-compliant Pending: 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																	
IEEE 1394 adptr	<i>Some:</i> 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	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	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 <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 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Corel® WinDVD® (DVD±RW)		Accessories <table><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>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>ThinkVision® L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>NVIDIA Quadro NVS 290</td><td>43R1765</td></tr><tr><td>ATI FirePro 1GB V7750</td><td>51J0511</td></tr></table> Other accessories at lenovo.com/accessories	2GB PC3-10600 DDR3 ECC UDIMM	43R2033	4GB PC3-10600 DDR3 ECC UDIMM	57Y4138	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	ThinkVision® L2440p Wide 24" Monitor	4420HB2	NVIDIA Quadro NVS 290	43R1765	ATI FirePro 1GB V7750	51J0511
2GB PC3-10600 DDR3 ECC UDIMM	43R2033																	
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NVIDIA Quadro NVS 290	43R1765																	
ATI FirePro 1GB V7750	51J0511																	

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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- **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 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			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		
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			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)		
Media reader	20-in-1 media reader, internal USB 2.0			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			GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0-compliant		
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			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		
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 <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					
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

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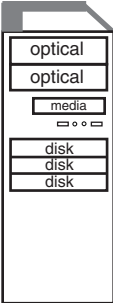
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	Win7 preload	Global	Avail date
S20	4157-G9U	5x6	W3530	2.80	4	2x2GB	1x146GB ² SAS	3.5"	No	DVD±RW	Media		None	Pro64	Global	Aug 10
S20	4157-H1U	5x6	W3530	2.80	4	2x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10
S20	4157-H2U	5x6	W3550	3.06	4	3x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media		None	Pro64	Global	Aug 10
S20	4157-H3U	5x6	W3550	3.06	4	3x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10
S20	4157-H4U	5x6	W3680	3.33	6	3x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media	1xFX3800	None	Pro64	Global	Aug 10
S20	4157-H5U	5x6	W3565	3.20	4	3x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media		None	Pro64	Global	Aug 10
S20	4157-H6U	5x6	W3530	2.80	4	2x2GB	1x150GB SATA	2.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10
S20	4157-H7U	5x6	W3530	2.80	4	3x2GB	1x500GB SATA	3.5"	No	DVD±RW	Media	1xFX580	None	Pro64	Global	Aug 10
S20	4157-H8U	5x6	W3530	2.80	4	3x2GB	1x500GB SATA	3.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10
S20	4157-H9U	5x6	W3550	3.06	4	3x2GB	1x500GB SATA	3.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Processor	Intel® Xeon® Processor W3530, W3550, or W3565 with quad-core, 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost 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, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache 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	One LGA1366 socket			
Memory	4GB or 6GB 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 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 3800</i> , PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I****, 108W **** 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)	<i>Some: 500GB</i> , SATA 3.0Gb/s, 7200 rpm, 3.5" <i>Some: 150GB</i> , SATA 3.0Gb/s, 10000 rpm, 2.5"			
SAS disk(s)	<i>Some: 146GB</i> , SAS 3.0Gb/s, 15000 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 <i>SAS model(s):</i> Marvell® 88SE6440, PCIe x4 adapter, 4 SATA/SAS ⁴ connectors, SATA 3.0Gb/s, SAS 3.0Gb/s			
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		Supports ThinkVantage® technologies	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black		GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0-compliant	
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])		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	
Rack mount	Rack shelf support			
Preloaded operating system²⁰		Accessories		
- 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™		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• Microsoft Office 2010 preloaded; purchase product key to activate		Blu-ray™ Burner SATA 1.5Gb/s	45K1675	
• Roxio® Creator® Business Edition (DVD±RW)		ThinkVision® L2440p Wide 24" Monitor	4420HB2	
• Corel® WinDVD® (DVD±RW)		NVIDIA Quadro NVS 290	43R1765	
		ATI FirePro 1GB V7750	51J0511	
		Other accessories at lenovo.com/accessories		

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		Bay ① 5.25", 1.6" high, external, std optical
SATA disk(s)	500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"		Bay ② 5.25", 1.6" high, external, open
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		Bay ③ 3.5", 1" high, external, std media reader
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals		Bay ④ 3.5", 1" high, internal, std disk
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 ⑤ 3.5", 1" high, internal, opt disk
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)		Bay ⑥ 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		Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max)
IEEE 1394 adptr	FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear		Slot 2: full-length, full-height, PCIe 2.0 x4**
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec		Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max)
Speaker	Internal speaker for business audio		Slot 4: full-length, full-height, PCIe x1
Ethernet	One gigabit ethernet on planar, Broadcom® BCM5755		Slot 5: half-length, full-height, 32-bit PCI 2.3
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant		** x16 mechanical
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black		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)
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)		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) <ul style="list-style-type: none">• 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 <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			

ThinkStation.



Lenovo ThinkStation D20



Lenovo ThinkStation S20 (left)
Lenovo ThinkStation D20 (right)



Lenovo ThinkStation D20



Lenovo ThinkStation D20
with Lenovo ThinkVision L2440 Monitor



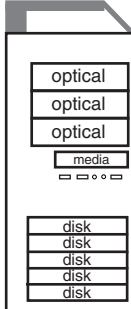
Lenovo ThinkStation Graphics Card Option
NVIDIA® Quadro® 1.5GB FX 4800 (45K1674)



Lenovo ThinkStation Graphics Card Option
ATI™ FirePro™ 1GB V7750 (51J0511)

	Type-model	Slot x bay	Processor(s)GHz	Cores	Memory DIMMs	Memory type	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	Win7 preload	Avail date		
D20	4155-B6U	6x9	1xE5507	2.26	4	2x1GB	UDIMM	1x500GB ²	SATA	3.5"	No	DVD±RW	Media	1xFX580	1394	Pro64	Mar 10
D20	4155-B7U	6x9	1xE5620	2.40	4	2x2GB	UDIMM	1x500GB	SATA	3.5"	No	DVD±RW	Media	1xFX1800	1394	Pro64	Mar 10
D20	4155-E1U	6x9	1xE5620	2.40	4	2x2GB	RDIMM	1x500GB	SATA	3.5"	No	DVD±RW	Media			Pro64	Sep 10

- **Faster, more efficient architecture with the latest Intel® workstation technology**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor	Up to two processors, one processor standard, Intel Xeon® Processor E5507 with quad-core , Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5620 with quad-core , 5.86GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology (up to 2.66GHz at max turbo mode), 1066MHz DDR3 memory controller, and 12MB cache Two LGA1366 sockets		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						
Memory	<i>UDIMM Model (s):</i> 2GB or 4GB std, 48GB max, <i>RDIMM Model (s):</i> 4GB std, 192GB max (pending 16GB RDIMM availability); 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 or 1066MHz DDR3 memory controller *** Over six DIMMs requires dual processors		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						
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 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								
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)						
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		Supports ThinkVantage® technologies						
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	<i>Some:</i> 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		GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0-compliant						
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		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						
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							
- Genuine Windows® 7 Professional 64		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						
		ThinkVision® L2440p Wide 24" Monitor	4420HB2						
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)• Microsoft Office 2010 preloaded; purchase product key to activate		Other accessories at lenovo.com/accessories							

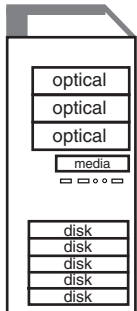
See footnotes for important warranty information

ES US model announced September 21, 2010; previous models on March 16, 2010

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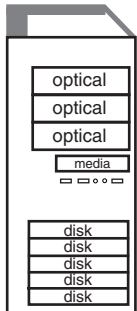
Type- Name	Slot x model bay	Processor(s)GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	Win7 preload	Avail date
D20 4158-A9U	6x9	1xE5503	2.00 2	2x1GB	1333MHz	1x500GB ²	SATA 3.5"	No	DVD±RW	Media	1xNVS295	1394	Pro64	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

- **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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 																
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: NVIDIA® Quadro® NVS 295, PCIe x16 adapter, 256MB, two DisplayPort, 23W</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			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)																
Media reader	20-in-1 media reader																			
SATA disk(s)	<i>Some: 500GB, SATA 3.0Gb/s, 7200 rpm, 3.5"</i>																			
SAS disk(s)	<i>Some: 300GB, SAS 3.0Gb/s, 15000 rpm</i>																			
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			Supports ThinkVantage® technologies																
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)			GREENGUARD® certified RoHS-compliant <i>Pending: ENERGY STAR® 5.0-compliant</i>																
Rack mount	Rack shelf support or optional sliding rack mount rail kit support																			
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Professional 64 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)• Microsoft Office 2010 preloaded; purchase product key to activate• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)				Accessories <table><tr><td>2GB PC3-8500 DDR3 ECC UDIMM</td><td>51J0504</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>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>ThinkVision® L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>ATI™ FirePro™ 1GB V7750</td><td>51J0511</td></tr></table> Other accessories at lenovo.com/accessories	2GB PC3-8500 DDR3 ECC UDIMM	51J0504	2GB PC3-10600 DDR3 ECC UDIMM	43R2033	4GB PC3-10600 DDR3 ECC UDIMM	57Y4138	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	ThinkVision® L2440p Wide 24" Monitor	4420HB2	ATI™ FirePro™ 1GB V7750	51J0511
2GB PC3-8500 DDR3 ECC UDIMM	51J0504																			
2GB PC3-10600 DDR3 ECC UDIMM	43R2033																			
4GB PC3-10600 DDR3 ECC UDIMM	57Y4138																			
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																			
ThinkVision® L2440p Wide 24" Monitor	4420HB2																			
ATI™ FirePro™ 1GB V7750	51J0511																			
LIMITED WARRANTY ¹ <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(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
4158-B9U	6x9	1xX5670	2.93	3.33	6	3x2GB	1333MHz	1x300GB SAS	3.5"	No	DVD±RW	Media	1xFX4800			Jun 10

- **Faster, more efficient architecture with the latest Intel® workstation technology**
- **These models have a 3-year limited warranty¹**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor	Up to two processors, one processor standard, Intel Xeon® Processor E5620, E5630, or 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, X5660, or X5670 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 or 6GB 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		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	
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 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 <i>Some:</i> NVIDIA Quadro FX 4800 , 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			
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:</i> 500GB , SATA 3.0Gb/s, 7200 rpm, 3.5"			
SAS disk(s)	<i>Some:</i> 300GB , 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		GREENGUARD® certified RoHS-compliant <i>Pending:</i> ENERGY STAR® 5.0-compliant	
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	<i>Some:</i> 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		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	
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		Accessories		
- 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	
• Microsoft Office 2010 preloaded; purchase product key to activate		Blu-ray™ Burner SATA 1.5Gb/s	45K1675	
		NVIDIA Quadro FX 4800	45K1674	
		Other accessories at lenovo.com/accessories		

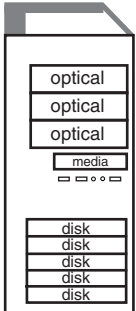
See footnotes for important warranty information

® US model announced June 15, 2010; previous models on March 16 or May 4, 2010

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Type-model	Slot x bay	Processor(s)	Base GHz	Cores	Memory DIMMs	Memory speed	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adpdr	Global	Avail date
4158-D6U	6x9	2xE5620	2.40	8	4x2GB	1333MHz	1x300GB ² SATA	2.5"		DVD±RW	Media		None	Global	Aug 10
4158-D7U	6x9	2xE5620	2.40	8	4x2GB	1333MHz	2x146GB SAS	3.5"	1	DVD±RW	Media		None	Global	Aug 10
4158-D8U	6x9	2xE5620	2.40	8	4x2GB	1333MHz	146GB+300GB SAS	3.5"		DVD±RW	Media	1xFX3800	None	Global	Aug 10
4158-D9U	6x9	2xE5640	2.66	8	4x2GB	1333MHz	1x300GB SATA	2.5"		DVD±RW	Media		None	Global	Aug 10
4158-E1U	6x9	2xX5650	2.66	12	4x2GB	1333MHz	1x300GB SATA	2.5"		DVD±RW	Media	1xFX4800	None	Global	Aug 10
4158-E2U	6x9	2xX5650	2.66	12	4x2GB	1333MHz	1x150GB SATA	2.5"		DVD±RW	Media	1xFX1800	None	Global	Aug 10
4158-E3U	6x9	2xX5660	2.80	12	4x2GB	1333MHz	1x300GB SAS	3.5"		DVD±RW	Media	1xFX4800	None	Global	Aug 10
4158-E4U	6x9	1xX5680	3.33	6	3x2GB	1333MHz	1x300GB SATA	2.5"		DVD±RW	Media	1xFX4800	None	Global	Aug 10
4158-E5U	6x9	1xX5677	3.46	4	3x2GB	1333MHz	1x300GB SATA	2.5"		DVD±RW	Media		None	Global	Aug 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Processor	<p>Up to two processors, one or two processors standard, Intel® Xeon® Processor E5620 or 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 X5677 with quad-core, 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache or Intel Xeon Processor X5650, X5660, or X5680 with six-core, 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache</p>														
Implementation	Two LGA1366 sockets														
Memory	<p>6GB or 8GB std, 48GB max, UDIMM, PC3-10600 1333MHz DDR3**, ECC, 6-channel capable (3-channel per processor), twelve 240-pin DIMM sockets***</p> <p>** System automatically clocks down for processors with 1066MHz DDR3 memory controller</p> <p>*** Over six DIMMs requires dual processors</p>														
Graphics	<p>Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU</p> <p>Some: NVIDIA® Quadro® FX 1800, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W</p> <p>Some: NVIDIA Quadro FX 3800, PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I****, 108W</p> <p>Some: NVIDIA Quadro FX 4800, PCIe x16 adapter, 1.5GB, two slot width, two DisplayPort, one dual-link DVI-I****, 121W</p> <p>**** Only two display connectors are active at a time</p>														
Diskette drive	None (use USB port)														
Media reader	20-in-1 media reader														
SATA disk(s)	Some: 150GB or 300GB , SATA 3.0Gb/s, 10000 rpm, 2.5"														
SAS disk(s)	Some: 146GB or 300GB , SAS 3.0Gb/s, 15000 rpm, 3.5"														
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 adpdr	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 max (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							Preloaded applications⁵ (only some listed)								
- Genuine Windows® 7 Professional 64							• Microsoft Office 2010 preloaded; purchase product key to activate								
							<p>Tower</p> <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  <p>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, std or 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</p> <p>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</p>								
							<p>SECURITY</p> <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) <p>Supports ThinkVantage® technologies</p> <p>GREENGUARD® certified RoHS-compliant Pending: ENERGY STAR® 5.0-compliant</p> <p>LIMITED WARRANTY¹</p> <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 								

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 E5507	0A36177	ann	08/24/10
Intel Xeon Quad-Core Processor E5620	0A36179	ann	08/24/10
Intel Xeon Quad-Core Processor E5640	0A36178	ann	08/24/10
Intel Xeon Six-Core Processor X5650	0A36180	ann	08/24/10
Intel Xeon Six-Core Processor X5660	0A36182	ann	08/24/10
Intel Xeon Six-Core Processor X5670	0A36181	ann	08/24/10

⁵⁵ Additional processor must match the existing processor

Memory⁵³**All:**

2GB PC3-8500 DDR3 ECC UDIMM	51J0504	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:

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 supported

⁵⁴ 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:**

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 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
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 L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
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

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
Lenovo Security Cable Lock	57Y4303	ann	08/24/10

USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
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Rack mount accessories**D20:**

ThinkStation D-Series Rail Kit	43R1964	ann	03/11/08
ThinkStation C-Series, D-Series Rail Kit	57Y4482	ann	09/14/10

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

**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 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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October 2010
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Personal Systems Reference Lenovo® ThinkServer™ Servers

October 2010 - Version 386



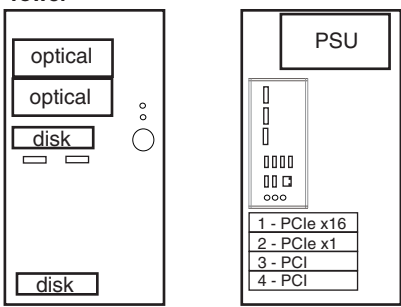
New Lenovo ThinkServer 200 Series Family
TS200v/TD230/RD240

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	Mar10
0981-12U	4x4	G6950	2.80	2	1x2GB	1333MHz	ECC	1x250GB	3.5"		2xDirect Cable	DVD		280W	Mar10
0981-18U	4x4	i5-650	3.20	2	1x2GB	1333MHz	ECC	2x250GB	3.5"	1	2xDirect Cable	DVD	2008 Foundations	280W	Mar10
0981-19U	4x4	i5-650	3.20	2	1x2GB	1333MHz	ECC	1x500GB	3.5"		2xDirect Cable	DVD±RW		280W	Mar10
0981-1AU	4x4	G6950	2.80	2	1x2GB	1333MHz	ECC	2x250GB	3.5"	1	2xDirect Cable	DVD	2008 Foundations	280W	Mar10
0981-1BU	4x4	i5-650	3.20	2	2x2GB	1333MHz	ECC	2x250GB	3.5"	1	2xDirect Cable	DVD±RW	2008 SBS Std	280W	Jul 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				
Memory	1GB, 2GB, or 4GB 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		<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	
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: DVD-ROM DL SATA 1.5Gb/s 16X-48X Max⁴ Drive</i>			
SATA DVD±RW	<i>Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</i>			
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			
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)			
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)			
Keyboard	None (use USB port)			
Mouse	None (use USB port)			
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				
1GB PC3-10600 DDR3 ECC UDIMM		67Y1387		
2GB PC3-10600 DDR3 ECC UDIMM		67Y1388		
4GB PC3-10600 DDR3 ECC UDIMM		67Y1389		
500GB 3.5" SATA Cabled (7200 rpm)		67Y1401		
1TB 3.5" SATA Cabled (7200 rpm)		67Y1402		
More accessories on O-RED sheet				
Other accessories at lenovo.com/accessories				
Limited Warranty¹				
⇒ 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)				
⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty				
• Onsite service upgrade options (in eligible locations) ⁷				
• Post warranty maintenance services				
⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378				
			Preloaded Operating System	
			<i>Some: Genuine Windows Server® 2008 R2 Foundations</i>	
			<i>Some: Genuine Windows Small Business Server 2008 Standard SP2</i>	
			ENERGY STAR® Server 1.0-compliant	
			RoHS-compliant	

See footnotes for important warranty information

US model announced July 6, 2010; previous models on February 23 or March 9, 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

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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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

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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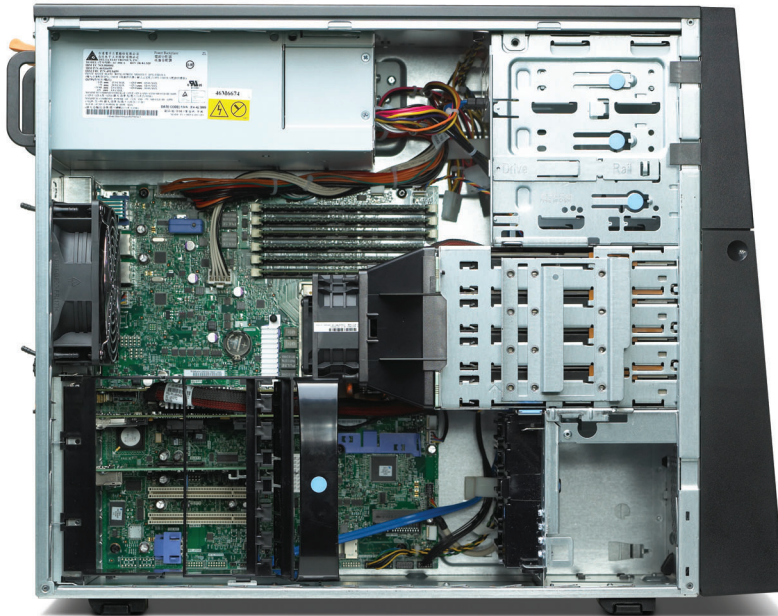
ThinkServer™



Lenovo ThinkServer TS200



Lenovo ThinkServer TS200
with Redundant Power Supply



Lenovo ThinkServer TS200
with Redundant Power Supply

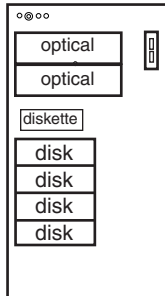
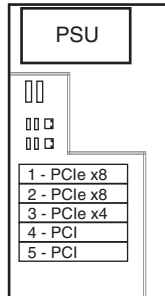


Lenovo ThinkServer TS200

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

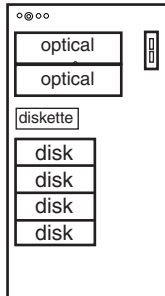
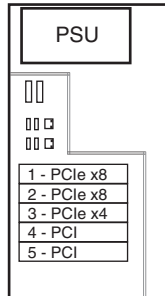
Processor(s)	Up to one processor, one processor standard, Intel Xeon® Processor X3430 and X3450 with quad-core , 2.5GT/s (giga-transfers/second) DMI (Direct Media Interface), Turbo Boost Technology, Hyper-Threading Technology (X3450 only), Intel 64, 1333MHz DDR3 memory controller, 8MB cache	Front 	Rear 
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, supports up to 6 single- or dual-rank RDIMMs, or up to 4 quad-rank RDIMMs * 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 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	
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	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	
Optical	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s		
Diskette	None (use USB port)	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	
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	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)	
Extender card	None		
Front ports	Two USB 2.0	Software Management Tools <ul style="list-style-type: none">• ThinkServer EasyStartup	
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	ThinkPlus Priority Support, 90-day Trial	
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	RoHS-compliant	
Prerequisites	Monitor, SATA/SAS disk, OS		
Keyboard	None (use USB port)	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	
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		
Virtualization Virtualization ready, hypervisor connector embedded			
Max memory capacity (RDIMM models) <i>Single-rank RDIMM:</i> 6GB with six 1GB PC3-10600 DDR3 RDIMMs (using 67Y0014) <i>Dual-rank RDIMM:</i> 12GB with six 2GB PC3-10600 DDR3 RDIMMs (using 67Y0124) <i>Quad-rank RDIMM:</i> 16GB with four 4GB PC3-8500 DDR3 RDIMMs (using 67Y0125) 32GB with four 8GB RDIMMs (Pending availability)			
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 parts ³ , 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 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378			

See footnotes for important warranty information

US model announced January 8, 2010; previous models on 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		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		
Software Management Tools • ThinkServer EasyStartup		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		
Virtualization Virtualization ready, hypervisor connector embedded		Power-On Hotkey • Setup Utility: F1 at startup • Diagnostic: F2 at startup • Network Boot: F12 at startup • RAID Configuration Utility: Ctrl+C at startup		
Max internal capacity 4.0TB with four 1TB SS SATA disks (using 67Y1380)		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)		
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		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 RDIMM (1R x 8)	67Y0014	ann	05/05/09
2GB PC3-10600 DDR3 RDIMM (2R x 8)	67Y0124	ann	11/24/09
4GB PC3-8500 DDR3 RDIMM (4R x 8)	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

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

ThinkServer™



Lenovo ThinkServer TD230



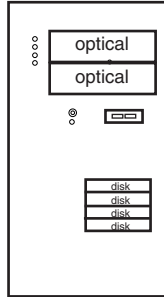
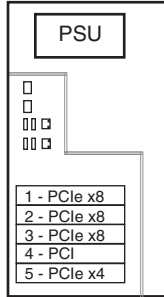
Lenovo ThinkServer TD230



Lenovo ThinkServer TD230 (Direct Cable)

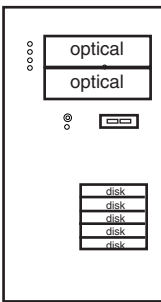
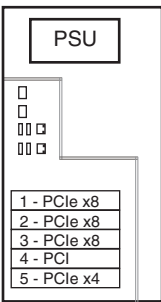
Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	Disk bays	Disk Controller	Disk type	RAID Int	System mgmt	Ethernet	Avail date
TD230	1029-12U	5x6	1x E5507	2.26	4	1x 4GB	1333MHz	3.5"	4x Hot-swap	ICH10R	SATA	0/1/10	IPMI	2x Gb	Jul 10
TD230	1029-13U	5x6	1x E5620	2.40	4	1x 4GB	1333MHz	3.5"	4x Hot-swap	9240-8i	SATA/SAS*	0/1/5/10	KVM	2x Gb	Jul 10

- **These models have a 3-year limited warranty¹**
- **Flexible and green tower computing at value price point**
- **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 E5507 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache or Intel Xeon Processor E5620 with quad-core , 5.86GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 12MB cache Two LGA1366 sockets	<div><div>Front</div></div> <div><div>Rear</div></div> <div><ul style="list-style-type: none">• Tower mechanical, rack-mountable to 5U• Business black color; metal case• 8.3"W x 20.1"D x 18.5"H• 210mm W x 510mm D x 470mm H• 57.6 lb (26.2kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Rack shelf support<table><tr><td>Bay 1</td><td>5.25"</td><td>1.6" high,</td><td>external,</td><td>std optical</td></tr><tr><td>Bay 2</td><td>5.25"</td><td>1.6" high,</td><td>external,</td><td>optional optical</td></tr><tr><td>Bay 3</td><td>3.5"</td><td>1" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 4</td><td>3.5"</td><td>1" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 5</td><td>3.5"</td><td>1" high,</td><td>external,</td><td>optional disk</td></tr><tr><td>Bay 6</td><td>3.5"</td><td>1" high,</td><td>external,</td><td>optional disk</td></tr></table><div><div>Slot 1:</div> half-length, full-height, PCI Express 2.0 x8</div><div><div>Slot 2:</div> half-length, full-height, PCI Express 2.0 x8</div><div><div>Slot 3:</div> half-length, full-height, PCI Express 2.0 x8***</div><div><div>Slot 4:</div> half-length, full-height, 32-bit PCI 2.3</div><div><div>Slot 5:</div> half-length, full-height, PCI Express x4</div><div>*** x4 electrical</div></div>	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 disk	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 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 disk																											
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																											
Memory	4GB std, 32GB max (16GB per processor), RDIMM, PC3-10600 1333MHz DDR3*, ECC, Memory Mirroring , eight 240-pin DIMM sockets**, * System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller ** Over four DIMMs requires dual processors																															
Graphics	Onboard ServerEngines™ Pilot II graphics/management controller, one VGA DB-15 on rear, 32MB; <i>Maximum resolution: 1600x1200@52Hz</i>																															
Disk bays	<i>Some:</i> Four 3.5" hot-swap (HS) SATA disk bays <i>Some:</i> Four 3.5" HS SATA/SAS disk bays																															
Disk controller	<i>Some:</i> Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID ⁰ 0, 1, 10 support <i>Some:</i> ThinkServer SAS 9240-8i, PCI Express® bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5, 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 and 82567																															
Chipset	Intel 5500 Chipset , Intel I/O Hub (IOH) for PCI Express slots 1-3 (see right) and links to 82574L; enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 RAID (ICH10R) for USB, slots 4-5, onboard SATA controller, and links to 82567																															
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)																															
Internal ports	One USB 2.0 connector for optional tape drive																															
Diagnostics	System status LEDs on front, Diagnostic LEDs on rear and board																															
Systems mgmt	Onboard ServerEngines Pilot II graphics/management controller <i>IPMI model(s):</i> IPMI 2.0-compliant baseboard management controller (BMC) <i>KVM model(s):</i> IPMI functions PLUS KVM, ThinkServer Remote Management Module 3, supports one additional ethernet port																															
Prerequisites	Monitor, SATA/SAS disk, OS																															
Keyboard	None (use USB port)																															
Mouse	None (use USB port)																															
Power supply(s)	One fixed 625 watts standard, universal, 80 PLUS® Bronze qualified																															
Cooling	Five fans std (power supply, two front, one rear, first processor), one optional processor fan for second processor																															
<div><div>Max memory capacity</div>32GB with eight 4GB PC3-10600 DDR3 RDIMMs (using 67Y1433)</div>		<div><div>Power-On Hotkey</div><ul style="list-style-type: none">• Setup Utility: F2 at startup• Network Boot: F12 at startup• ICH10R RAID: Ctrl+E at startup• 9420-8i RAID: Ctrl+H at startup</div>																														
<div><div>Max internal capacity</div>3.5" SATA HS: 4.0TB with four 1TB SATA disks (using 67Y1402) 3.5" SAS HS: 1.8TB with four 450GB HS SAS disks (using 67Y1462)</div>		<div><div>Software Management Tools</div><ul style="list-style-type: none">• ThinkServer EasyStartup</div>																														
<div><div>Limited Warranty¹</div><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</div>		<div><div>Security</div><ul style="list-style-type: none">• Administrator password• User password• Front panel key lock• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (all)</div>																														
		RoHS-compliant																														

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Disk(s)	Disk size	Disk bays	Disk Controller	Disk type	SATA optical	RAID Int	System mgmt	Ethernet	Avail date
TD230	1027-12U	5x7	1xE5506	2.13	4	1x2GB	1x250GB ²	3.5"	5xDirect Cable	ICH10R	SATA	DVD±RW	0/1/10	IPMI	2xGb	Jul 10

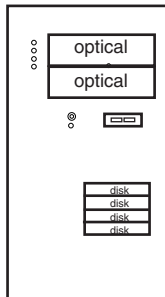
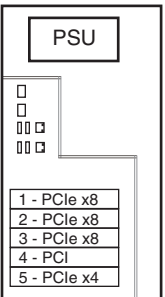
- **This model has a 1-year limited warranty¹**
- **Flexible and green tower computing at value price point**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**

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), Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache	<div>Front</div> <div></div> <div>Rear</div> <div></div>	<ul style="list-style-type: none">• Tower mechanical, rack-mountable to 5U• Business black color; metal case• 8.3"W x 20.1"D x 18.5"H• 210mm W x 510mm D x 470mm H• 57.6 lb (26.2kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Rack shelf support
Implementation	Two LGA1366 sockets		
Memory	2GB std, 32GB max (16GB per processor), RDIMM, PC3-10600 1333MHz DDR3*, ECC, Memory Mirroring , eight 240-pin DIMM sockets**, * System automatically clocks down for processors with 800MHz DDR3 memory controller ** Over four DIMMs requires dual processors		
Graphics	Onboard ServerEngines™ Pilot II graphics/management controller, one VGA DB-15 on rear, 32MB; <i>Maximum resolution: 1600x1200@52Hz</i>		
SATA disk(s)	250GB , SATA 3.0Gb/s, 7200 rpm	<div>Bay 1 5.25", 1.6" high, external, std optical</div> <div>Bay 2 5.25", 1.6" high, external, optional optical</div> <div>Bay 3 3.5", 1" high, external, std disk</div> <div>Bay 4 3.5", 1" high, external, optional disk</div> <div>Bay 5 3.5", 1" high, external, optional disk</div> <div>Bay 6 3.5", 1" high, external, optional disk</div> <div>Bay 7 3.5", 1" high, external, optional disk</div>	<div>Slot 1: half-length, full-height, PCI Express 2.0 x8</div> <div>Slot 2: half-length, full-height, PCI Express 2.0 x8</div> <div>Slot 3: half-length, full-height, PCI Express 2.0 x8***</div> <div>Slot 4: half-length, full-height, 32-bit PCI 2.3</div> <div>Slot 5: half-length, full-height, PCI Express x4</div> <div>*** x4 electrical</div>
Disk bays	Five 3.5" SATA disk bays, no hot-swap, direct cable (DC)		
Disk controller	Six SATA connectors for opticals and disks, Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID ⁶ 0, 1, 10 support		
Optical	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
Diskette	None (use USB port)		
Ethernet	Two Gigabit Ethernet ports, Intel 82574L and 82567		
Chipset	Intel 5500 Chipset , Intel I/O Hub (IOH) for PCI Express slots 1-3 (see right) and links to 82574L, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 RAID (ICH10R) for USB, slots 4-5, onboard SATA controller, and links to 82567		
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)		
Internal ports	One USB 2.0 connector for optional tape drive		
Diagnostics	System status LEDs on front, Diagnostic LEDs on rear		
Systems mgmt	Onboard ServerEngines Pilot II graphics/management controller, IPMI 2.0-compliant baseboard management controller (BMC)		
Prerequisites	Monitor, SATA/SAS disk, OS		
Keyboard	None (use USB port)		
Mouse	None (use USB port)		
Power supply(s)	One fixed 625 watts standard, universal, 80 PLUS® Bronze qualified		
Cooling	Five fans std (power supply, two front, one rear, first processor), one optional processor fan for second processor		
<div><div>Accessories</div><div>Intel Xeon E5506 Processor Option Kit 67Y1449</div><div>2GB PC3-10600 DDR3 1333 MHz RDIMM 67Y1432</div><div>ThinkServer TD230 SATA RAID 5 Upgrade 67Y1459</div><div>250GB 3.5" SATA (7200 rpm) 67Y1400</div><div>More accessories on O-ARTsheet</div><div>Other accessories at lenovo.com/accessories</div></div>			
<div><div>Max memory capacity</div><div>32GB with eight 4GB PC3-10600 DDR3 RDIMMs (using 67Y1433)</div></div>			
<div><div>Max internal capacity</div><div>5.0TB with five 1TB SATA disks (using 67Y1402)</div></div>			
<div><div>Limited Warranty¹</div><div>⇒ 1-year parts and labor</div><div>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays)</div><div>⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty</div><div>• Onsite service upgrade options (in eligible locations)⁷</div><div>• Post warranty maintenance services</div><div>⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div>			
<div><div>Power-On Hotkey</div><div>• Setup Utility: F2 at startup</div><div>• Network Boot: F12 at startup</div><div>• ICH10R RAID: Ctrl+E at startup</div></div>			
<div><div>Software Management Tools</div><div>• ThinkServer EasyStartup</div></div>			
<div><div>Security</div><div>• Administrator password</div><div>• User password</div><div>• Front panel lock out</div><div>• Boot sequence control</div><div>• Boot without keyboard, mouse, diskette</div><div>• Serial port I/O control</div><div>• USB port disablement (all)</div></div>			
<div>RoHS-compliant</div>			

See footnotes for important warranty information
US model announced July 27, 2010

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	Disk bays	Disk Controller	Disk type	RAID Int	System mgmt	Ethernet	Avail date
TD230	1040-11U	5x7	1xE5503	2.00	2	1x2GB	1333MHz	3.5"	5x Direct Cable	ICH10R	SATA	0/1/10	IPMI	2x Gb	Jul 10
TD230	1040-12U	5x6	1xE5503	2.00	2	1x2GB	1333MHz	3.5"	4 x Hot-swap	ICH10R	SATA	0/1/10	IPMI	2x Gb	Jul 10
TD230	1040-13U	5x6	1xE5506	2.13	4	1x4GB	1333MHz	3.5"	4 x Hot-swap	9240-8i	SATA/SAS ⁴	0/1/5/10	IPMI	2x Gb	Jul 10

- **These models have a 3-year limited warranty¹**
- **Flexible and green tower computing at value price point**

Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5503 with dual-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache Intel Xeon Processor E5506 with quad-core , 4.8GT/s QPI, Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache	Front - (Hot-swap) 	Rear 
Implementation	Two LGA1366 sockets		
Memory	2GB or 4GB std, 32GB max (16GB per processor), RDIMM, PC3-10600 1333MHz DDR3*, ECC, Memory Mirroring , eight 240-pin DIMM sockets**, * System automatically clocks down for processors with 800MHz DDR3 memory controller ** Over four DIMMs requires dual processors	<ul style="list-style-type: none">• Tower mechanical, rack-mountable to 5U• Business black color; metal case• 8.3"W x 20.1"D x 18.5"H• 210mm W x 510mm D x 470mm H• 57.6 lb (26.2kg) max configuration• Toolless side cover removal• Toolless optical drive removal• Rack shelf support Hot-swap model(s): 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 disk 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 Direct cable model(s): 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 disk 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 Slot 1: half-length, full-height, PCI Express 2.0 x8 Slot 2: half-length, full-height, PCI Express 2.0 x8 Slot 3: half-length, full-height, PCI Express 2.0 x8*** Slot 4: half-length, full-height, 32-bit PCI 2.3 Slot 5: half-length, full-height, PCI Express x4 *** x4 electrical	
Graphics	Onboard ServerEngines™ Pilot II graphics/management controller, one VGA DB-15 on rear, 32MB; <i>Maximum resolution: 1600x1200@52Hz</i>		
Disk bays	<i>Some:</i> Five 3.5" SATA disk bays, no hot-swap, direct cable (DC) <i>Some:</i> Four 3.5" hot-swap (HS) SATA disk bays <i>Some:</i> Four 3.5" HS SATA/SAS disk bays		
Disk controller	<i>Some:</i> Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, RAID ⁸ 0, 1, 10 support <i>Some:</i> ThinkServer SAS 9240-8i, PCI Express® bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5, 10 support DC Model(s): Six SATA connectors for opticals and disks		
Optical	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s		
Diskette	None (use USB port)		
Ethernet	Two Gigabit Ethernet ports, Intel 82574L and 82567		
Chipset	Intel 5500 Chipset , Intel I/O Hub (IOH) for PCI Express slots 1-3 (see right) and links to 82574L, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 RAID (ICH10R) for USB, slots 4-5, onboard SATA controller, and links to 82567		
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)		
Internal ports	One USB 2.0 connector for optional tape drive		
Diagnostics	System status LEDs on front, Diagnostic LEDs on rear		
Systems mgmt	Onboard ServerEngines Pilot II graphics/management controller,, IPMI 2.0-compliant baseboard management controller (BMC)		
Prerequisites	Monitor, SATA/SAS disk, OS		
Keyboard	None (use USB port)		
Mouse	None (use USB port)		
Power supply(s)	One fixed 625 watts standard, universal, 80 PLUS® Bronze qualified		
Cooling	Five fans std (power supply, two front, one rear, first processor), one optional processor fan for second processor		
Max memory capacity 32GB with eight 4GB PC3-10600 DDR3 RDIMMs (using 67Y1433)		Power-On Hotkey <ul style="list-style-type: none">• Setup Utility: F2 at startup• Network Boot: F12 at startup• ICH10R RAID: Ctrl+E at startup• LSI 9420-8i RAID: Ctrl+H at startup	
Max internal capacity 3.5" SATA HS: 4.0TB with four 1TB SATA disks (using 67Y1402) 3.5" SATA DC: 5.0TB with five 1TB SATA disks (using 67Y1402) 3.5" SAS HS: 1.8TB with four 450B 3.5" SAS disks (using 67Y1462)		Software Management Tools <ul style="list-style-type: none">• ThinkServer EasyStartup	
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		Security <ul style="list-style-type: none">• Administrator password• User password• Front panel lock out• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (all)	
		RoHS-compliant	

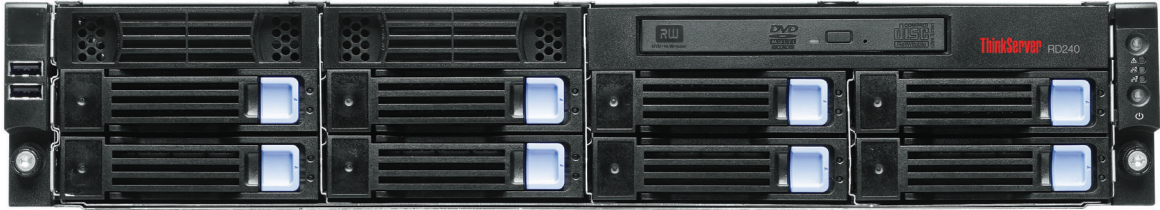
See footnotes for important warranty information
US models announced July 27, 2010

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Memory speed	Disk size	Disk bays	Disk Controller	Disk type	RAID Int	System mgmt	Ethernet	Avail date
TD230	1039-11U	5x7	1xE5503	2.00	2	1x2GB	1333MHz	3.5"	5xDirect Cable	ICH10R	SATA	0/1/10	IPMI	2xGb	Jul 10
TD230	1039-12U	5x6	1xE5503	2.00	2	1x2GB	1333MHz	3.5"	4xHot-swap	ICH10R	SATA	0/1/10	IPMI	2xGb	Jul 10

- **This model has a 1-year limited warranty¹**
- **Flexible and green tower computing at value price point**

Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5503 with dual-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache		<div>Front - (Hot-swap)</div> <div><div><div>optical</div><div>optical</div></div><div><div>disk</div><div>disk</div><div>disk</div><div>disk</div></div></div> <div>Rear</div> <div><div>PSU</div><div><div>1 - PCIe x8</div><div>2 - PCIe x8</div><div>3 - PCIe x8</div><div>4 - PCI</div><div>5 - PCIe x4</div></div></div>
Implementation	Two LGA1366 sockets		
Memory	2GB std, 32GB max (16GB per processor), RDIMM, PC3-10600 1333MHz DDR3*, ECC, Memory Mirroring , eight 240-pin DIMM sockets**, * System automatically clocks down for processors with 800MHz DDR3 memory controller ** Over four DIMMs requires dual processors		
Graphics	Onboard ServerEngines™ Pilot II graphics/management controller, one VGA DB-15 on rear, 32MB; <i>Maximum resolution:</i> 1600x1200@52Hz		
Disk bays	<i>Some:</i> Five 3.5" SATA disk bays, no hot-swap, direct cable (DC) <i>Some:</i> Four 3.5" hot-swap (HS) SATA disk bays		
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, RAID [®] 0, 1, 10 support <i>DC Model(s):</i> Six SATA connectors for opticals and disks		
Optical	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s		
Diskette	None (use USB port)		
Ethernet	Two Gigabit Ethernet ports, Intel 82574L and 82567		
Chipset	Intel 5500 Chipset , Intel I/O Hub (IOH) for PCI Express slots 1-3 (see right) and links to 82574L, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 RAID (ICH10R) for USB, slots 4-5, onboard SATA controller, and links to 82567		
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)		
Internal ports	One USB 2.0 connector for optional tape drive		
Diagnostics	System status LEDs on front, Diagnostic LEDs on rear		
Systems mgmt	Onboard ServerEngines Pilot II graphics/management controller, IPMI 2.0-compliant baseboard management controller (BMC)		
Prerequisites	Monitor, SATA/SAS disk, OS		
Keyboard	None (use USB port)		
Mouse	None (use USB port)		
Power supply(s)	One fixed 625 watts standard, universal, 80 PLUS® Bronze qualified		
Cooling	Five fans std (power supply, two front, one rear, first processor), one optional processor fan for second processor		
<div><div>Accessories</div><div><div>Intel Xeon E5506 Processor Option Kit</div><div>67Y1449</div></div><div><div>2GB PC3-10600 DDR3 1333 MHz RDIMM</div><div>67Y1432</div></div><div><div>ThinkServer TD230 SATA RAID 5 Upgrade</div><div>67Y1459</div></div><div><div>250GB 3.5" SATA (7200 rpm)</div><div>67Y1400</div></div><div>More accessories on O-ARTsheet</div></div>			
Other accessories at lenovo.com/accessories			
<div><div>Max memory capacity</div><div>32GB with eight 4GB PC3-10600 DDR3 RDIMMs (using 67Y1433)</div></div>			
<div><div>Max internal capacity</div><div><div>3.5" SATA HS:</div><div>4.0TB with four 1TB SATA disks (using 67Y1402)</div></div><div><div>3.5" SATA DC:</div><div>5.0TB with five 1TB SATA disks (using 67Y1402)</div></div></div>			
<div><div>Limited Warranty¹</div><div><div>⇒ 1-year parts and labor</div><div>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays)</div><div>⇒ 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</div><div>⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div></div>			
<div><div>Power-On Hotkey</div><div><div>• Setup Utility:</div><div>F2 at startup</div></div><div><div>• Network Boot:</div><div>F12 at startup</div></div><div><div>• ICH10R RAID:</div><div>Ctrl+E at startup</div></div></div>			
<div><div>Software Management Tools</div><div>• ThinkServer EasyStartup</div></div>			
<div><div>Security</div><div><div>• Administrator password</div><div>• User password</div><div>• Front panel lock out</div><div>• Boot sequence control</div><div>• Boot without keyboard, mouse, diskette</div><div>• Serial port I/O control</div><div>• USB port disablement (all)</div></div></div>			
RoHS-compliant			

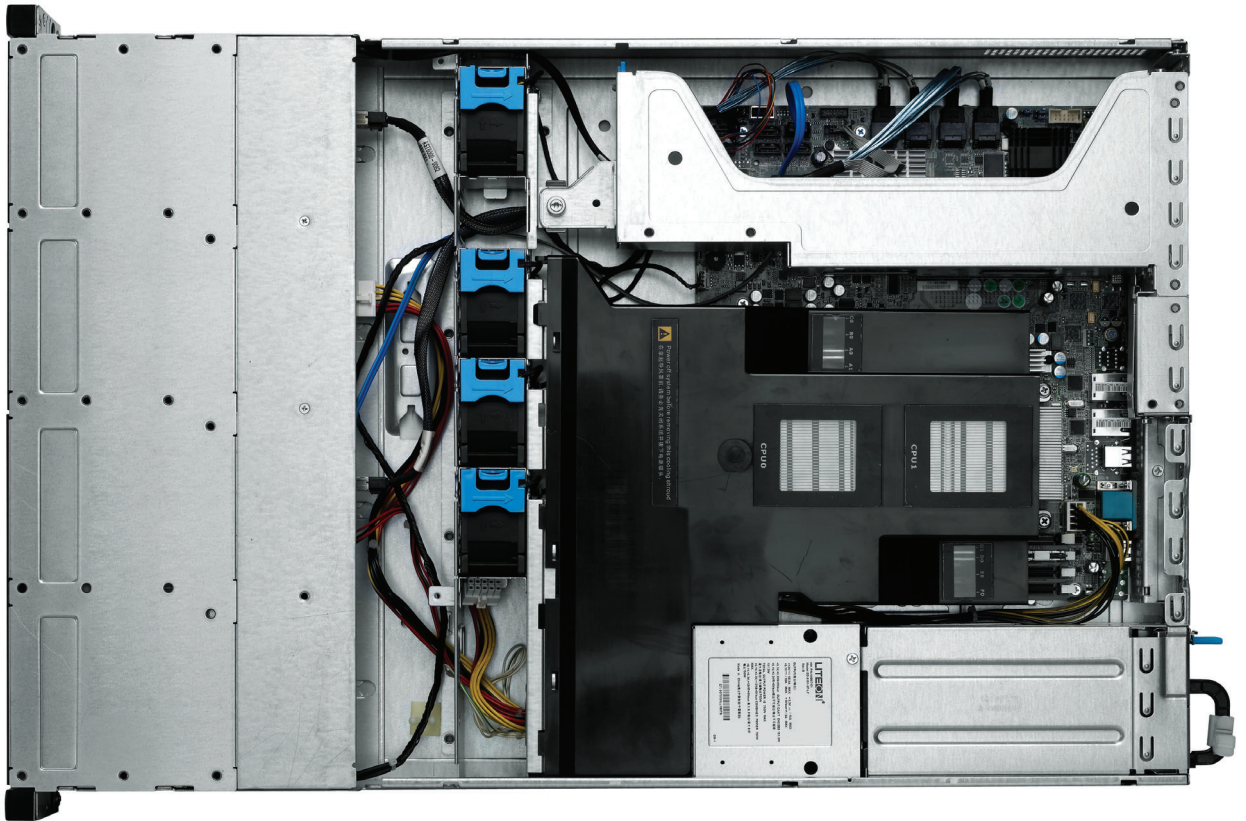
See footnotes for important warranty information
US models announced July 27, 2010



Lenovo ThinkServer RD240



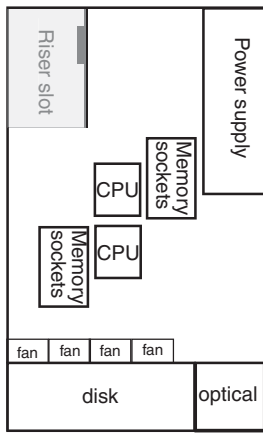
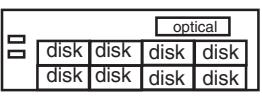

Lenovo ThinkServer RD240



Lenovo ThinkServer RD240

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Disk size	RAID Battery	Disk bays	Disk Controller	Disk type	RAID Int	System mgmt	Power supply(s)	Ethernet	Avail date
RD240	1046-11U	3x9	1xE5506	2.13	4	1x2GB	3.5"		8x Hot-swap	1068E	SATA/SAS ⁴	0/1/1E	IPMI	1x750W	2xGb	Jul 10
RD240	1046-12U	3x9	1xE5507	2.26	4	1x4GB	3.5"		8x Hot-swap	8708E	SATA/SAS	Multi*	KVM	1x750W	2xGb	Jul 10
RD240	1046-13U	3x9	1xE5620	2.40	4	1x4GB	3.5"	Battery	8x Hot-swap	8708E	SATA/SAS	Multi	KVM	2x750W	2xGb	Jul 10
RD240	1046-14U	3x9	2xE5640	2.66	8	2x4GB	3.5"	Battery	8x Hot-swap	8708E	SATA/SAS	Multi	KVM	2x750W	2xGb	Jul 10

*Multi = RAID 0/1/5/6/10/50/60

Processor(s)	Up to two processors, one or two processors standard, Intel® Xeon® Processor E5506 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 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 E5620 or E5640 with quad-core , 5.86GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 12MB cache
Implementation	Two LGA1366 sockets
Memory	2GB, 4GB, or 8GB std, 64GB max (32GB per processor), RDIMM, PC3-10600 1333MHz DDR3**, ECC, Memory Mirroring , eight 240-pin DIMM sockets***, ** System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller *** Over four DIMMs requires dual processors
Graphics	Onboard Aspeed AST2050 graphics/management processor, one VGA DB-15 on rear, 8MB; <i>Maximum resolution: 1600x1200@60Hz</i>
Disk bays	Eight 3.5" hot-swap (HS) SATA/SAS disk bays
Disk controller	<i>Some:</i> LSI™ LSISAS1068E, PCI Express® bus, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 1E support <i>Some:</i> ThinkServer 8708ELP SAS RAID Controller, PCI Express bus, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1, 5, 6, 10, 50, 60 support <i>Some:</i> Battery backed cache integrated
Optical	UltraSlim Enhanced DVD±RW
Diskette	None (use USB port)
Ethernet	Two Gigabit Ethernet ports, dual Intel 82574L controllers
Chipset	Intel 5500 Chipset , Intel I/O Hub (IOH) for PCI Express slots 1-3 (see right), links to LSISAS1068E, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 RAID (ICH10R) for USB
Riser card	(See Right) One PCI Express 2.0 x8, two PCI Express 2.0 x8 (x4 electrical) slots standard
Front ports	Two USB 2.0
Rear ports	Four USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45)
Internal port	One USB 2.0 connector
Diagnostics	Diagnostic and system status LEDs on front panel
Systems mgmt	Onboard Aspeed AST2050 graphics/management processor <i>IPMI model(s):</i> IPMI 2.0-compliant baseboard management controller (BMC), storage over IP, remote platform flash, BIOS update, USB 2.0 virtual hub <i>KVM model(s):</i> IPMI functions PLUS KVM supported, 24bit high quality video compression
Prerequisites	Monitor, keyboard, mouse, SATA/SAS disk, rack, OS
Keyboard	None (use USB port)
Mouse	None (use USB port)
Power supply(s)	One or two 750 watts standard, two maximum, variable speed fan, auto-sensing, redundant with two power supplies
Cooling	Four fans standard, four maximum, variable speed
Max memory capacity 64GB with eight 8GB PC3-10600 DDR3 RDIMMs (using 67Y1464)	
Max internal capacity 3.5" SATA HS: 8.0TB with eight 1TB HS SATA disks (using 67Y1480) 3.5" SAS HS: 3.6TB with eight 450GB HS SAS disks (using 67Y1482)	
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	
2U Rack top	
	
Front	
	
Rear	
	
<ul style="list-style-type: none">• 2U Mechanical• Designed for EIA-310 standard 19-inch rack only• Black color front; metal case• 19"W x 27.6"D x 3.44"H• 483mm W x 700mm D x 87.5mm H• 66.6 lb (30kg) max configuration• Toolless top cover removal• Toolless disk and removal• Toolless adapter retention	
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 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 Bay 8 3.5", 1" high, external, optional disk Bay 9 3.5", 1" high, external, optional disk	
Slot 1: full-length, full-height, PCI Express 2.0 x8 Slot 2: full-length, full-height, PCI Express 2.0 x8**** Slot 3: half-length, full-height, PCI Express 2.0 x8**** **** x4 electrical	
Virtualization Virtualization ready, VMWare Ready™ certified	
Power-On Hotkey <ul style="list-style-type: none">• Setup Utility: DEL at startup• Network Boot: F12 at startup• 1068E RAID: Ctrl+C at startup• 8708ELP RAID: Ctrl+H at startup	
Software Management Tools <ul style="list-style-type: none">• ThinkServer EasyStartup	
Security <ul style="list-style-type: none">• Administrator password• User password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (all)	
RoHS-compliant	

See footnotes for important warranty information
US models announced July 27, 2010

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Disk size	RAID Battery	Disk bays	Disk Controller	Disk type	RAID Int	System mgmt	Power supply(s)	Ethernet	Avail date
RD240	1048-11U	3x9	1x E5503	2.00	2	1x 2GB	3.5"		8x Hot-swap	1068E	SATA/SAS ⁴	0/1/1E	IPMI	1x 750W	2x Gb	Jul 10
RD240	1048-12U	3x9	1x E5640	2.66	4	1x 4GB	3.5"	Battery	8x Hot-swap	8708E	SATA/SAS	Multi*	KVM	1x 750W	2x Gb	Jul 10
RD240	1048-13U	3x9	2x X5650	2.66	12	2x 4GB	3.5"	Battery	8x Hot-swap	8708E	SATA/SAS	Multi	KVM	2x 750W	2x Gb	Jul 10

*Multi = RAID 0/1/5/6/10/50/60

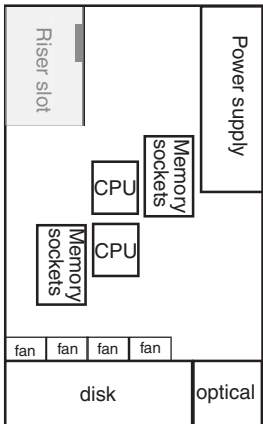
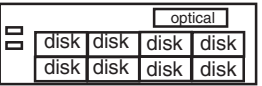

*Multi = RAID 0/1/5/6/10/50/60

Processor(s)	Up to two processors, one or two processors standard, Intel® Xeon® Processor E5503 with dual-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 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, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 12MB cache or Intel Xeon Processor X5650 with six-core , 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache	<div><div><div>2U Rack top</div><div></div></div><div><div>Front</div><div></div></div><div><div>Rear</div><div></div></div></div> <div><div><div>Bay 1</div><div>5.25", 0.5" high, external, std optical</div></div><div><div>Bay 2</div><div>3.5", 1" high, external, optional disk</div></div><div><div>Bay 3</div><div>3.5", 1" high, external, optional disk</div></div><div><div>Bay 4</div><div>3.5", 1" high, external, optional disk</div></div><div><div>Bay 5</div><div>3.5", 1" high, external, optional disk</div></div><div><div>Bay 6</div><div>3.5", 1" high, external, optional disk</div></div><div><div>Bay 7</div><div>3.5", 1" high, external, optional disk</div></div><div><div>Bay 8</div><div>3.5", 1" high, external, optional disk</div></div><div><div>Bay 9</div><div>3.5", 1" high, external, optional disk</div></div></div> <div><div>Slot 1: full-length, full-height, PCI Express 2.0 x8</div><div>Slot 2: full-length, full-height, PCI Express 2.0 x8***</div><div>Slot 3: half-length, full-height, PCI Express 2.0 x8***</div><div>*** x4 electrical</div></div>
Implementation	Two LGA1366 sockets	
Memory	2GB, 4GB, or 8GB std, 64GB max (32GB per processor), RDIMM, PC3-10600 1333MHz DDR3*, ECC, Memory Mirroring , eight 240-pin DIMM sockets**, * System automatically clocks down for processors with 800MHz or 1066MHz DDR3 memory controller ** Over four DIMMs requires dual processors	
Graphics	Onboard Aspeed AST2050 graphics/management processor, one VGA DB-15 on rear, 8MB; <i>Maximum resolution: 1600x1200@60Hz</i>	
Disk bays	Eight 3.5" hot-swap (HS) SATA/SAS disk bays	
Disk controller	<i>Some:</i> LSI™ LSISAS1068E, PCI Express® bus, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 1E support <i>Some:</i> ThinkServer 8708ELP SAS RAID Controller, PCI Express bus, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1, 5, 6, 10, 50, 60 support <i>Some:</i> Battery backed cache integrated	
Optical	UltraSlim Enhanced DVD±RW	
Diskette	None (use USB port)	
Ethernet	Two Gigabit Ethernet ports, dual Intel 82574L controllers	
Chipset	Intel 5500 Chipset , Intel I/O Hub (IOH) for PCI Express slots 1-3 (see right), links to LSISAS1068E, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 RAID (ICH10R) for USB	
Riser card	(See Right) One PCI Express 2.0 x8, two PCI Express 2.0 x8 (x4 electrical) slots standard	
Front ports	Two USB 2.0	
Rear ports	Four USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45)	
Internal port	One USB 2.0 connector	
Diagnostics	Diagnostic and system status LEDs on front panel	
Systems mgmt	Onboard Aspeed AST2050 graphics/management processor <i>IPMI model(s):</i> IPMI 2.0-compliant baseboard management controller (BMC), storage over IP, remote platform flash, BIOS update, USB 2.0 virtual hub <i>KVM model(s):</i> IPMI functions PLUS KVM supported, 24bit high quality video compression	
Prerequisites	Monitor, keyboard, mouse, SATA/SAS disk, rack, OS	
Keyboard	None (use USB port)	
Mouse	None (use USB port)	
Power supply(s)	One or two 750 watts standard, two maximum, variable speed fan, auto-sensing, redundant with two power supplies	
Cooling	Four fans standard, four maximum, variable speed	
Max memory capacity		
64GB with eight 8GB PC3-10600 DDR3 RDIMMs (using 67Y1464)		
Max internal capacity		
3.5" SATA HS: 8.0TB with eight 1TB HS SATA disks (using 67Y1480) 3.5" SAS HS: 3.6TB with eight 450GB HS SAS disks (using 67Y1482)		
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		
Virtualization		
Virtualization ready, VMWare Ready™ certified		
Power-On Hotkey		
• Setup Utility: DEL at startup • Network Boot: F12 at startup • 1068E RAID: Ctrl+C at startup • 8708ELP RAID: Ctrl+H at startup		
Software Management Tools		
• ThinkServer EasyStartup		
Security		
• Administrator password • User password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (all)		
RoHS-compliant		

See footnotes for important warranty information
US models announced July 27, 2010

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Cores	Memory DIMMs	Disk size	RAID Battery	Disk bays	Disk Controller	Disk type	RAID Int	System mgmt	Power supply(s)	Ethernet	Avail date
RD240	1047-11U	3x9	1xE5503	2.00	2	1x2GB	3.5"	None	8xHot-swap	1068E	SATA/SAS ⁴	0/1/1E	IPMI	1x750W	2xGb	Jul 10

- **This model has a 1-year limited warranty¹**
- **High performance, scalability, and remote management supported at value price point**

Processor(s)	Up to two processors, one processor standard, Intel® Xeon® Processor E5503 with dual-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Virtualization Technology, 800MHz DDR3 memory controller, and 4MB cache			
Implementation	Two LGA1366 sockets			
Memory	2GB , 64GB max (32GB per processor), RDIMM, PC3-10600 1333MHz DDR3*, ECC, Memory Mirroring , eight 240-pin DIMM sockets**, * System automatically clocks down for processors with 800MHz DDR3 memory controller ** Over four DIMMs requires dual processors			
Graphics	Onboard Aspeed AST2050 graphics/management processor, one VGA DB-15 on rear, 8MB; <i>Maximum resolution: 1600x1200@60Hz</i>			
Disk bays	Eight 3.5" hot-swap (HS) SATA/SAS disk bays			
Disk controller	LSI™ LSI SAS1068E, PCI Express® bus, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 1E support			
Optical	UltraSlim Enhanced DVD±RW			
Diskette	None (use USB port)			
Ethernet	Two Gigabit Ethernet ports, dual Intel 82574L controllers			
Chipset	Intel 5500 Chipset , Intel I/O Hub (IOH) for PCI Express slots 1-3 (see right), links to LSI SAS1068E, enterprise south bridge interface (ESI) to Intel I/O Controller Hub 10 RAID (ICH10R) for USB			
Riser card	(See Right) One PCI Express 2.0 x8, two PCI Express 2.0 x8 (x4 electrical) slots standard		<div><div>• 2U Mechanical</div><div>• Designed for EIA-310 standard 19-inch rack only</div><div>• Black color front; metal case</div><div>• 19"W x 27.6"D x 3.44"H</div><div>• 483mm W x 700mm D x 87.5mm H</div><div>• 66.6 lb (30kg) max configuration</div><div>• Toolless top cover removal</div><div>• Toolless disk removal</div><div>• Toolless adapter retention</div></div> <div><div>Bay 1</div><div>5.25", 0.5" high, external, std optical</div></div> <div><div>Bay 2</div><div>3.5", 1" high, external, optional disk</div></div> <div><div>Bay 3</div><div>3.5", 1" high, external, optional disk</div></div> <div><div>Bay 4</div><div>3.5", 1" high, external, optional disk</div></div> <div><div>Bay 5</div><div>3.5", 1" high, external, optional disk</div></div> <div><div>Bay 6</div><div>3.5", 1" high, external, optional disk</div></div> <div><div>Bay 7</div><div>3.5", 1" high, external, optional disk</div></div> <div><div>Bay 8</div><div>3.5", 1" high, external, optional disk</div></div> <div><div>Bay 9</div><div>3.5", 1" high, external, optional disk</div></div> <div><div>Slot 1: full-length, full-height, PCI Express 2.0 x8</div><div>Slot 2: full-length, full-height, PCI Express 2.0 x8***</div><div>Slot 3: half-length, full-height, PCI Express 2.0 x8***</div><div>*** x4 electrical</div></div>	
Front ports	Two USB 2.0			
Rear ports	Four USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45)			
Internal port	One USB 2.0 connector			
Diagnostics	Diagnostic and system status LEDs on front panel			
Systems mgmt	Onboard Aspeed AST2050 graphics/management processor IPMI 2.0-compliant baseboard management controller (BMC), storage over IP, remote platform flash, BIOS update, USB 2.0 virtual hub			
Prerequisites	Monitor, keyboard, mouse, SATA/SAS disk, rack, OS			
Keyboard	None (use USB port)			
Mouse	None (use USB port)			
Power supply(s)	One 750 watts standard, two maximum, variable speed fan, auto-sensing, redundant with two power supplies			
Cooling	Four fans standard, four maximum, variable speed			
<div><div><div>Accessories</div><div><div>Intel Xeon E5503 Processor Option Kit</div><div>67Y1466</div></div><div><div>2GB PC3-10600 DDR3 1333 MHz RDIMM</div><div>67Y1432</div></div><div><div>8GB PC3-10600 DDR3 1333 MHz RDIMM</div><div>67Y1464</div></div><div><div>ThinkServer 8708ELP RAID Controller</div><div>67Y1494</div></div><div><div>1TB 3.5" SATA HS (7200 rpm)</div><div>67Y1480</div></div><div><div>450GB² 3.5" SAS HS (15000 rpm)</div><div>67Y1482</div></div><div><div>More accessories on O-ARTsheet</div></div></div><div><div>Other accessories at lenovo.com/accessories</div></div></div>		<div><div>Virtualization</div><div>Virtualization ready, VMWare Ready™ certified</div></div> <div><div>Power-On Hotkey</div><div><div>• Setup Utility: DEL at startup</div><div>• Network Boot: F12 at startup</div><div>• LSI 1068E RAID: Ctrl+C at startup</div></div></div> <div><div>Software Management Tools</div><div>• ThinkServer EasyStartup</div></div> <div><div>Security</div><div><div>• Administrator password</div><div>• User password</div><div>• Boot sequence control</div><div>• Boot without keyboard, mouse, diskette</div><div>• Serial port I/O control</div><div>• USB port disablement (all)</div></div><div><div>RoHS-compliant</div></div></div>		
<div><div><div>Max memory capacity</div><div>64GB with eight 8GB PC3-10600 DDR3 RDIMMs (using 67Y1464)</div></div><div><div>Max internal capacity</div><div><div>3.5" SATA HS: 8.0TB with eight 1TB HS SATA disks (using 67Y1480)</div><div>3.5" SAS HS: 3.6TB with eight 450GB HS SAS disks (using 67Y1482)</div></div></div><div><div>Limited Warranty¹</div><div><div>⇒ 1-year parts and labor</div><div>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays)</div><div>⇒ ThinkPlus™ services available; see lenovo.com/thinkplus/warranty</div><div><div>• Onsite service upgrade options (in eligible locations)⁷</div><div>• Post warranty maintenance services</div></div><div>⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div></div></div>				

Partial list of accessories supported on Lenovo® ThinkServer TD230, RD240.

ThinkServer Ready accessories are available through Lenovo Business Partners. Locate a Business Partner near you at:
bplocator.lenovo.com

Processor⁵⁰**TD230:**

Intel® Xeon® E5503 Processor Option Kit	67Y1448	ann	07/27/10
Intel Xeon E5506 Processor Option Kit	67Y1449	ann	07/27/10
Intel Xeon E5507 Processor Option Kit	67Y1458	ann	07/27/10
Intel Xeon E5620 Processor Option Kit	67Y1457	ann	07/27/10

RD240:

Intel Xeon E5503 Processor Option Kit	67Y1466	ann	07/27/10
Intel Xeon E5506 Processor Option Kit	67Y1467	ann	07/27/10
Intel Xeon E5507 Processor Option Kit	67Y1476	ann	07/27/10
Intel Xeon E5620 Processor Option Kit	67Y1475	ann	07/27/10
Intel Xeon E5640 Processor Option Kit	67Y1471	ann	07/27/10

⁵⁰ Additional processor must match the existing processor

Memory⁵³**All:**

2GB PC3-10600 DDR3 RDIMM (2R x 8)	67Y1432	ann	07/27/10
4GB PC3-10600 DDR3 RDIMM (2R x 4)	67Y1433	ann	07/27/10

RD240:

8GB PC3-10600 DDR3 RDIMM (2R x 4)	67Y1464	ann	07/27/10
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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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ThinkServer RAID controller**TD230:**

ThinkServer TD230 SATA RAID 5 Upgrade	67Y1459	ann	07/27/10
ThinkServer 9240-8i RAID Controller	67Y1460	ann	07/27/10

RD240:

ThinkServer 8708ELP Controller (256MB)	67Y1494	ann	07/27/10
ThinkServer 8708ELP RAID Controller Battery	67Y1495	ann	07/27/10

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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System Management**TD230:**

Remote Management Module 3	67Y1461	ann	07/27/10
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Redundant Power Supply**RD240:**

ThinkServer RD240 Redundant PSU	67Y1497	ann	07/27/10
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Disk Drive**3.5" SATA Direct Cable (DC) and Hot-swap (HS):****TD230:**

250GB ² 3.5" SATA DC/HS (7200 rpm)	67Y1400	ann	02/23/10
500GB 3.5" SATA DC/HS (7200 rpm)	67Y1401	ann	02/23/10
1TB 3.5" SATA DC/HS (7200 rpm)	67Y1402	ann	02/23/10

3.5" SATA HS:**RD240:**

250GB 3.5" SATA HS (7200 rpm)	67Y1478	ann	07/27/10
500GB 3.5" SATA HS (7200 rpm)	67Y1479	ann	07/27/10
1TB 3.5" SATA HS (7200 rpm)	67Y1480	ann	07/27/10

3.5" SAS HS:**TD230 preconfigured with SAS controller:**

300GB 3.5" SAS HS (15000 rpm)	67Y1437	ann	07/27/10
450GB 3.5" SAS HS (15000 rpm)	67Y1462	ann	07/27/10

RD240:

300GB 3.5" SAS HS (15000 rpm)	67Y1481	ann	07/27/10
450GB 3.5" SAS HS (15000 rpm)	67Y1482	ann	07/27/10

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™ TD230, RD240

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***TD230 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

TD230 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

RD240 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

RD240 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

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

TD230 with 1-year warranty

3-year Priority Support	45K4064
3-year Priority 4 Support	45K4065

TD230 with 3-year warranty

3-year Priority Support	45K4067
3-year Priority 4 Support	45K4068

RD240 with 1-year warranty

3-year Priority Support	45K5307
3-year Priority 4 Support	45K5308

RD240 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***TD230 with 1-year warranty**

3-year Priority Support with HDDR	45K5445
3-year Priority 4 Support with HDDR	45K5446

TD230 with 3-year warranty

3-year Priority Support with HDDR	45K5447
3-year Priority 4 Support with HDDR	45K5448

RD240 with 1-year warranty

3-year Priority Support with HDDR	45K5453
3-year Priority 4 Support with HDDR	45K5454

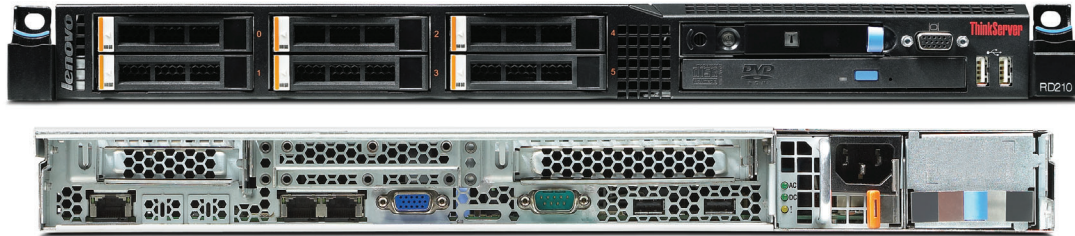
RD240 with 3-year warranty

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, TD230 (1-year)	45K4088
3-year ThinkPlus Productivity, TD230 (3-year)	45K4090
3-year ThinkPlus Productivity, RD240 (1-year)	45K5309
3-year ThinkPlus Productivity, RD240 (3-year)	45K4096



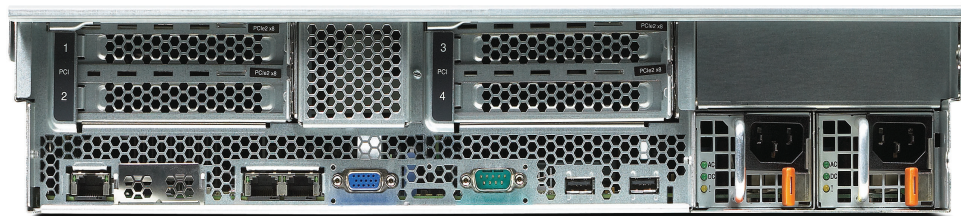
Lenovo® ThinkServer RD210



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</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>disks</div><div>optical</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", 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></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></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
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																																									
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										<div><div>Front</div><div><div>disk</div><div>disk</div><div>disk</div><div>disk</div><div>disk</div><div>optical</div></div><div>Rear</div><div><div>1 - PCIe x16</div><div>2 - PCIe x16</div><div>PSU</div><div>Opt PSU</div></div></div>																																	
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												
Intel Xeon Dual-Core Processor E5502	67Y0004																																											
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73GB ² 2.5" SAS SFF HS (15000 rpm)	67Y0115																																											
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500GB 2.5" SATA SFF HS (7200 rpm)	67Y0121																																											
Max internal capacity 3.0TB with six 500GB SATA SFF disks																																												
Virtualization Virtualization ready, hypervisor connector embedded																																												
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																																												
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																																												

Personal Systems Reference (PSREF)

* Multi = RAID-0/1/5/6/10/50/60 support

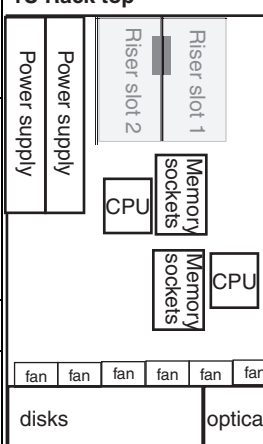
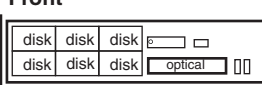
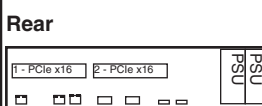
- **These models have a 3-year limited warranty¹**
- **Easy to use with ThinkServer EasyStartup and EasyManage software**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

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
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>Front</div> <div></div>
Implementation	Processor uses FC-LGA package, two LGA1366 sockets		<div>Rear</div> <div></div>
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		<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
Riser card	(See Right) Two PCI Express 2.0 x16 slots std, convertible via optional riser card(s) to 64-bit 133MHz PCI-X	Bay 1 5.25", 0.5" high, external, std optical	
Front ports	Two USB 2.0, external monitor (VGA DB-15)	Bay 2 2.5", 0.6" high, external, optional disk	
Rear ports	Two USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45)	Bay 3 2.5", 0.6" high, external, optional disk	
Internal port	One USB connector for embedded hypervisor	Bay 4 2.5", 0.6" high, external, optional disk	
Diagnostics	Easy LED Diagnostics (pull-out operator information panel with information LED and system-error LED)	Bay 5 2.5", 0.6" high, external, optional disk	
Systems mgmt	Integrated Management Module (IMM) Premium, IPMI 2.0-compliant, Trusted Platform Module (TPM) 1.2 support	Bay 6 2.5", 0.6" high, external, optional disk	
Prerequisites	Monitor, keyboard, mouse, SATA/SAS disk, rack, OS	Bay 7 2.5", 0.6" high, external, optional disk	
Keyboard	None (use USB port)	Slot 1: low-profile, PCI Express 2.0 x16	
Mouse	None (use USB port)	Slot 2: half-length, full-height, PCI Express 2.0 x16	
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		Power-On Hotkey <ul style="list-style-type: none">• Setup Utility: F1 at startup• Diagnostic: F2 at startup• Network Boot: F12 at startup	
Max internal capacity 3.0TB with six 500GB SATA SFF disks		Software Management Tools <ul style="list-style-type: none">• ThinkServer EasyStartup• ThinkServer EasyManage	
Virtualization Virtualization ready, hypervisor connector embedded		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)	
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		ThinkPlus Priority Support, 90-day Trial	
		RoHS-compliant	

See footnotes for important warranty information
US model announced May 5, 2009

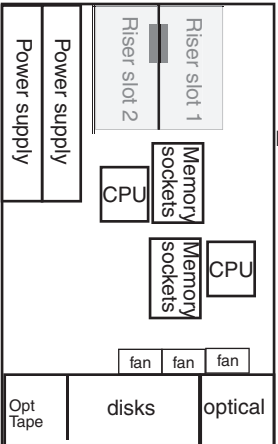
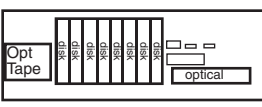
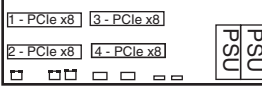
* Multi = RAID-0/1/5/6/10/50/60 support

- | | | |
|---|---|--|
| Processor(s) | Up to two processors, one or two processors 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 E5520 or E5540 with quad-core , 5.86GT/s QPI, 1066MHz DDR3 memory controller, and 8MB cache | |
| Implementation | Processor uses FC-LGA package, two LGA1366 sockets | |
| 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 or 2 sockets, 15 or 14 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:</i> 1280x1024@60Hz | |
| Disk bays | 8 hot-swap (HS) disk bays on 2.5" Slim-Form-Factor (SFF) std | |
| Disk Controller | <i>16U:</i> ServeRAID®-BR10i, PCI Express® bus, SATA 3Gb/s, SAS 3Gb/s, RAID® 0, 1 support
<i>1FU/1LU:</i> ServeRAID-MR10i, PCIe bus, SATA 3Gb/s, SAS 3Gb/s, RAID 0, 1, 5, 6, 10, 50, 60 support | |
| 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) | |
| 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 | Trusted Platform Module (TPM) 1.2 support
<i>16U:</i> Integrated Management Module (IMM) std, IPMI 2.0-compliant, upgradeable to IMM Premium
<i>1FU/1LU:</i> IMM Premium, IPMI 2.0-compliant | |
| 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 | |
| Max internal capacity
4.0TB² with eight 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 | | |
- | | |
|--------------------|----------------|
| 2U Rack top | |
| Power supply | Power supply |
| Riser slot 2 | Riser slot 1 |
| CPU | Memory sockets |
| Memory sockets | CPU |
| fan | fan |
| fan | fan |
| disks | optical |
- 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
- | | | | |
|-------|-------------------|-----------|---------------|
| 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 |
- | | | |
|---------|---------------------------|--------------------|
| Slot 1: | full-length, full-height, | PCI Express 2.0 x8 |
| Slot 2: | low-profile, | PCI Express 2.0 x8 |
| Slot 3: | full-length, full-height, | PCI Express 2.0 x8 |
| Slot 4: | half-length, full-height, | PCI Express 2.0 x8 |
- | | |
| --- | --- |
| **Power-On Hotkey** | |
- | | |
| --- | --- |
| • Setup Utility: F1 at startup | |
- | | |
| --- | --- |
| • Diagnostic: F2 at startup | |
- | | |
| --- | --- |
| • Network Boot: F12 at startup | |
- | | |
| --- | --- |
| **Software Management Tools** | |
- | | |
| --- | --- |
| • ThinkServer EasyStartup | |
- | | |
| --- | --- |
| • ThinkServer EasyManage | |
- | | |
| --- | --- |
| **Security** | |
- | | |
| --- | --- |
| • 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 | |

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	2U Rack top 	Front 
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	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
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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> • Setup Utility: F1 at startup • Diagnostic: F2 at startup • Network Boot: F12 at startup
Disk Controller	8 hot-swap (HS) disk bays on 2.5" Slim-Form-Factor (SFF) std 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	<ul style="list-style-type: none"> Slot 1: full-length, full-height, PCI Express 2.0 x8 Slot 2: low-profile, PCI Express 2.0 x8 Slot 3: full-length, full-height, PCI Express 2.0 x8 Slot 4: half-length, full-height, PCI Express 2.0 x8 	Power-On Hotkey
Optical	UltraSlim Enhanced DVD±RW		
Diskette	None (use USB port)	Software Management Tools	Security
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	ThinkPlus Priority Support, 90-day Trial	RoHS-compliant
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)	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
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		
Internal port	One USB connector for embedded hypervisor	Max internal capacity 4.0TB with eight 500GB SATA SFF disks	Virtualization Virtualization ready, hypervisor connector embedded
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	Accessories	See footnotes for important warranty information US model announced May 5, 2009
Prerequisites	Monitor, keyboard, mouse, SATA/SAS disk, rack, OS		
Keyboard	None (use USB port)	<ul style="list-style-type: none"> Intel Xeon Quad-Core Processor E5506 67Y0005 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 Lenovo® TV L151 15-inch Analog TFT Monitor 9165AC6 Other accessories at lenovo.com/accessories 	
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	Max internal capacity 4.0TB with eight 500GB SATA SFF disks	Virtualization Virtualization ready, hypervisor connector embedded
Cooling	Three fans std, three maximum, variable speed, hot-swap		

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™ 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***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

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

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

TD200x with 1-year warranty

3-year Priority Support	45K4064
3-year Priority 4 Support	45K4065

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***TD200x with 1-year warranty**

3-year Priority Support with HDDR	45K5445
3-year Priority 4 Support with HDDR	45K5446

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, TD200x (1-year)	45K4088
3-year ThinkPlus Productivity, 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

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
Small Business Server 2008 Standard SP2 ROK (64, 4GB)	84978MG

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
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.



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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.

October 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	12x500GB	SATA	1/5	None	1x850W	6xGB	Gbl	Jun 09
	SMC-SAN	8332-12U	6x14	1xE5205	1.86	2	2x1GB	667MHz	2x120GB	12x750GB	SATA	1/5	None	1x850W	6xGB	Gbl	Jun 09
	SMC-SAN	8332-13U	6x14	1xE5205	1.86	2	2x1GB	667MHz	2x120GB	12x1000GB	SATA	1/5	None	1x850W	6xGB	Gbl	Jun 09
	SMC-SAN	8332-14U	6x14	1xE5205	1.86	2	2x1GB	667MHz	2x120GB	12x500GB	SATA	1/5	None	2x850W	6xGB	Gbl	Jun 09
⚠	SMC-SAN	8332-15U	6x14	1xE5205	1.86	2	2x1GB	667MHz	2x120GB	12x750GB	SATA	1/5	None	2x850W	6xGB	Gbl	Jun 09
	SMC-SAN	8332-16U	6x14	1xE5205	1.86	2	2x1GB	667MHz	2x120GB	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>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div>fan</div><div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See footnotes for important warranty information

US models announced May 26, 2009

SMC-SAN 8332-11U, 12U, 13U, 14U, 15U, 16U models withdrawn effective January 2010

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(SAN1-1) May 2009

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



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.

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Personal Systems Reference Lenovo® ThinkVision® Monitors

October 2010 - Version 386



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
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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<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>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>Vertical frequency</div><div>Horizontal frequency</div><div>Viewing angle at 5:1 CR</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>L2021 Wide Flat Panel Monitor</div><div>Business black</div><div>4449-HB1</div><div>TFT-LCD, twisted nematic (TN), CCFL backlight</div><div>20.0" / 508mm (diagonal)</div><div>17.4" x 9.8" / 443mm x 249mm</div><div>1600x900 at 60Hz</div><div>16:9</div><div>0.277mm</div><div>92 dpi</div><div>250 nits or cd/m² (typical)</div><div>1000:1 (typical)</div><div>5ms (typical)</div><div>72%</div><div>Anti-reflective, anti-glare</div><div>50 to 75 Hz</div><div>31 to 81 kHz</div><div>178° (+/- 89°) horizontal, 170° (+/- 85°) vertical</div><div>170° (+/- 85°) horizontal, 160° (+/- 80°) vertical</div><div>Tilt adjustable stand</div><div>Sides: 0.48" (12.1mm); top: 0.47" (11.9mm); bottom: 0.39" (10.1mm)</div><div>14.1" H x 18.7" W x 5.9" D; 357.5mm H x 475.9mm W x 151.2mm D</div><div>22 watts typical, 27 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)</div><div>9.24 lb; 4.2kg</div><div>3 years (includes backlight)</div><div>September 2010</div></div>		<div>Features</div> <div><div>All-purpose 20-inch wide flat panel LCD monitor</div><div>View images in a 16x9 wide aspect ratio</div><div>High-bandwidth Digital Content Protection (HDCP)-compliant</div><div>Tilt and cable management stand</div><div>Compliance with ENERGY STAR 5.0</div><div>50% less mercury</div><div>Microsoft® Windows® 7 certified</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 / user settings</div>	<div>VESA DDC2B/CI, VESA DPMS-compliant</div> <div>ENERGY STAR®³ 5.0</div> <div>ISO 9241-307</div> <div>MPR-2, FCC Class B</div> <div>EPEAT™ Gold rating, TCO (TCO Displays 5.0), WEEE, RoHS (EU Directive 2002/95/EC)</div> <div>VGA: 640x350, 640x480, 720x400</div> <div>SVGA: 800x600, 832x624</div> <div>XGA: 1024x768, 1152x864</div> <div>WXGA: 1280x720, 1280x768, 1280x800, 1366x768</div> <div>SXGA: 1280x1024</div> <div>WXGA+: 1440 x 900, 1600x900</div> <div>Standard presets: 25; user settings: 20</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>Tilt: 20° back, -5° forward; 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</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) for digital attach [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 (for digital connector), 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, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, analog signal cable, digital signal cable, 1.8m power cord</div>	
<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 options:⁷</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><div>ThinkVision Soundbar</div><div>45K1263</div></div> <div><div>Kensington® MicroSaver® Cable Lock</div><div>73P2582</div></div> <div><div>Kensington Twin Head Cable Lock</div><div>45K1620</div></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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L2021 Wide Monitor



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L2021 Wide Monitor rear view with cable management

See footnotes for important warranty information
 US model announced September 21, 2010

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 (L2021) October 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® 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	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></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 Soundbar	45K1263							
Kensington® MicroSaver® Cable Lock	73P2582							
Kensington Twin Head Cable Lock	45K1620							

<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>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>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>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>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>Lenovo L2261 Wide Monitor</div> <div></div> <div>Lenovo L2261 Wide Monitor rear view with cable management</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><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>Limited Warranty</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>Accessories</div> <div>See details at www.lenovo.com/support/monitoraccessories</div> <div>See all monitors at www.lenovo.com/thinkvision</div>

See footnotes for important warranty information
 US model announced March 9, 2010

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 (L2261) March 2010

Name	L2230x Wide Flat Panel Monitor	Features <ul style="list-style-type: none">• Embedded USB port replicator; designed for notebook PC: one USB connects to all peripherals including LAN access• Widescreen 21.5-inch monitor with white LED backlight• 1080p full HD support• Tilt stand for viewing comfort; supports VESA mount (75mm)• Compliance with ENERGY STAR 5.0• Mercury free and arsenic free glass• Microsoft® Windows® 7 certified
Case color	Business black	
Type-model	5453-HB1	
Panel	TFT-LCD, twisted nematic (TN), white LED backlight	
Viewable image size	21.5" (547mm) diagonal	
Max view area (W x H)	18.8" x 10.6" / 476.6mm x 268.7mm	
Optimum resolution	1920x1080	
Aspect ratio	16:9	
Pixel pitch (mm)	.248mm	
Dot/Pixel per Inch	103 dpi	
Brightness	250 nits or cd/m² (typical)	
Contrast ratio	1000:1 (typical)	
Pixel response time	5ms (typical)	
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	<i>Sides:</i> 0.67" (17.1mm); <i>top:</i> 0.65" (16.5mm); <i>bottom:</i> 1.04" (26.5mm)	
Dimensions (HxWxD)	14.81" H x 20.17" W x 6.00" D; 376.3mm H x 512.3mm W x 152.5mm D	
Power supply	<i>Typical:</i> 22 watts (VGA), 24 watts (USB); <i>maximum:</i> 60 watts (USB, all USB engaged); <1 watts standby/suspend, universal, integrated (no external brick-like power supply)	
Weight	9.15 lb; 4.15kg	
Limited warranty ⁴	3 years (includes backlight)	
Available date	July 2010	
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant	
Power management	ENERGY STAR ^{®3} 5.0	
Ergonomics	ISO 9241-307	
Emission standards	MPR-2, FCC Class B	
Environmental	TCO (TCO Certified Edge), WEEE, RoHS, EPEAT™ Gold rating	
Preset resolutions	PAL, 640x350, 640x480, 640x500, 720x400, 800x600, 1024x768, 1152x864, 1280x1024, 1366x768, 1440x900, 1680x1050, 1920x1080	
Presets	Presents: 27(VGA), 11(USB); user settings: 20	
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 port replicator	Embedded USB port replicator (need to meet system requirements)	
USB hub	USB 2.0 Hub (1 port into PC, 3 ports for accessories),	
Multimedia	Audio line-out jack, Microphone-in jack	
Ethernet	10M/100Mbps	
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) USB 2.0	
Signal cables	(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, USB cable, 1.8 meter	
Mounting features	Wall or desk mounting using the Radial Arm [®] 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 poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter USB cable, 1.8 meter black power cord	
Limited Warranty		Accessories
⇒ 3 year limited warranty⁴		ThinkVision® Soundbar 45K1263
⇒ International Warranty Service⁵		Kensington MicroSaver® Cable Lock 73P2582
⇒ Rapid Replacement Service at 1-800-426-7378		Kensington Twin Head Cable Lock 45K1620
⇒ 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		
		See details at www.lenovo.com/support/monitoraccessories
		See all monitors at www.lenovo.com/thinkvision

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 fuction		
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/m ² (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 ^{®3} 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			
⇒ 2467: 1 year limited warranty⁴ Rapid Replacement Service at 1-877-453-6686			
⇒ 4015: 3 year limited warranty 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			
⇒ 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	
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>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</div> <div>L1711p Flat Panel Monitor Business black 5047-HB2 TFT-LCD, twisted nematic (TN), CCFL backlight 17.0" (432mm) diagonal 13.3" x 10.6" (337.9mm x 270.3mm) 1280x1024 at 60Hz 1280x1024 at 75Hz (165MHz max pixel rate) 5:4 0.264mm 96 dpi 250 nits or cd/m² (typical) 1000:1 (typical) 5ms (typical) 72% Anti-reflective, anti-glare 50 to 75Hz 30 to 83kHz 160° (+/- 80°) horizontal, 160° (+/- 80°) vertical Tilt height adjustable stand Sides: 0.6" (15.3mm); top: 0.72" (18.4mm); bottom: 1.11" (28.1mm) 16-20.33" H x 14.6" W x 6.1" D; 405.7-515.7mm H x 370mm W x 155.2mm D 18 watts typical, 21 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 9.3 lb; 4.21kg 3 year (includes backlight) November 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-compliant² Power management Ergonomics Emission standards Environmental</div> <div>VESA DDC2B/CI, VESA DPMS-compliant ENERGY STAR® 5.0 ISO 9241-307 MPR-2, MPR-3A, FCC Class B TCO (TCO Displays 5.0), WEEE, RoHS, EPEAT™ Gold rating</div>	<div></div> <div>ThinkVision L1711p Monitor</div>									
<div>Preset resolutions Presets / user settings</div> <div>VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768 SXGA: 1280x1024 Standard presets: 17; user settings: 22</div>										
<div>Viewing adjustments Rotating screen On screen display Control features Multiple input Monitor connectors Signal cables Mounting features Security</div> <div>Tilt: 20° back, -3° forward; lift: 4.3" (110mm); detachable stand None On screen display with digital user controls (8 languages) Direct access (buttons on front) for automatic image setup 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 Arm³ or third-party accessories meeting the VESA FPMPI® (100mm mount) 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>										
<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>Lenovo Easy Reach Monitor Stand</td><td>55Y9258</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	Lenovo Easy Reach Monitor Stand	55Y9258
ThinkVision Soundbar	45K1263									
Kensington® MicroSaver® Cable Lock	73P2582									
Kensington Twin Head Cable Lock	45K1620									
Lenovo Easy Reach Monitor Stand	55Y9258									


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	
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
⇒ 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 Lenovo Easy Reach Monitor Stand 55Y9258
		See details at www.lenovo.com/support/monitoraccessories
		See all monitors at www.lenovo.com/thinkvision


Name	L1900p Flat Panel Monitor	Features <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
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/m² (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	
Presets / 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	
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 options⁷:		
• 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		
ThinkVision Soundbar		45K1263
Kensington® MicroSaver® Cable Lock		73P2582
Kensington Twin Head Cable Lock		45K1620
Lenovo Easy Reach Monitor Stand		55Y9258
See details at www.lenovo.com/support/monitoraccessories		
See all monitors at www.lenovo.com/thinkvision		

<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>Vertical frequency</div> <div>Horizontal frequency</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>L1951p Wide Flat Panel Monitor</div> <div>Business black</div> <div>2448-HB6</div> <div>TFT-LCD, twisted nematic (TN), CCFL backlight</div> <div>19.0" (481mm) diagonal</div> <div>16.07" x 10.05" (408.2mm x 255.2mm)</div> <div>1440x900 at 60Hz</div> <div>1440x900 at 75Hz (137MHz max pixel rate)</div> <div>16:10</div> <div>.285mm</div> <div>89 dpi</div> <div>250 nits or cd/m² (typical)</div> <div>1000:1 (typical)</div> <div>5ms (typical)</div> <div>72%</div> <div>Anti-reflective, anti-glare</div> <div>50 to 76Hz</div> <div>30 to 81kHz</div> <div>160° (+/- 80°) horizontal, 160° (+/- 80°) vertical</div> <div>Tilt and height adjustable stand</div> <div>Sides: 0.61" (15.6mm); top: 0.67" (17.1mm); bottom: 1.2" (30.5mm)</div> <div>14.56-17.71" H x 17.36" W x 6.11" D; 369.9-449.9mm H x 440.9mm W x 155.2mm D</div> <div>19 watts typical, 23 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)</div> <div>9.37 lb; 4.25kg</div> <div>3 year (includes backlight)</div> <div>October 2009</div>	<div>Features</div> <div>• Widescreen 19-inch monitor</div> <div>• Supports WXGA+ 1440x900 resolution</div> <div>• Ergonomic stand tilts and provides a 3.1" (80mm) range height adjustment for comfortable viewing</div> <div>• Includes dual input connection for attachment to two systems concurrently (analog and digital)</div> <div>• Reduces mercury content by 50% and arsenic free glass</div> <div>• Up to 70% recycled packaging materials</div> <div>• Privacy Filter Slot</div> <div>• Microsoft® Windows® 7 certified</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 / user settings</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, EPEAT™ Gold rating</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>Standard presets: 27; user settings: 20</div>	<div></div> <div>ThinkVision L1951p Wide Monitor</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>Ship group</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>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>	
<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 options:⁷</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</div> <div>45K1263</div> <div>Kensington® MicroSaver® Cable Lock</div> <div>73P2582</div> <div>Kensington Twin Head Cable Lock</div> <div>45K1620</div> <div>Lenovo Easy Reach Monitor Stand</div> <div>55Y9258</div> <div>See details at www.lenovo.com/support/monitoraccessories</div> <div>See all monitors at www.lenovo.com/thinkvision</div>

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>Lenovo Easy Reach Monitor Stand</td> <td>55Y9258</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	Lenovo Easy Reach Monitor Stand	55Y9258
ThinkVision Soundbar	45K1263								
Kensington MicroSaver® Cable Lock	73P2582								
Kensington Twin Head Cable Lock	45K1620								
Lenovo Easy Reach Monitor Stand	55Y9258								

Name	L2251p Wide Flat Panel Monitor	Features <ul style="list-style-type: none">• 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
Case color	Business black	
Type-model	2572-HD6	
Panel	TFT-LCD, twisted nematic (TN), CCFL backlight	
Viewable image size	22.0" (559mm) diagonal	
Max view area (W x H)	18.7" x 11.7" (473.8mm x 296.1mm)	
Optimum resolution	1680x1050 at 60Hz	
Maximum resolution	1680x1050 at 75Hz (205MHz max pixel rate)	
Aspect ratio	16:10	
Pixel pitch (mm)	.282mm	
Dot/Pixel per Inch	90 dpi	
Brightness	250 nits or cd/m² (typical)	
Contrast ratio	1000:1 (typical)	
Pixel response time	5ms (typical)	
Color gamut	72%	
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, swivel, pivot, and height adjustable stand	
Bezel width	Sides: 0.60" (15.3mm); 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	
Limited Warranty		Accessories
➤ 3 year limited warranty⁴		ThinkVision Soundbar 45K1263
➤ International Warranty Service⁵		Kensington® MicroSaver® Cable Lock 73P2582
➤ 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		
➤ 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		
		See details at www.lenovo.com/support/monitoraccessories
		See all monitors at www.lenovo.com/thinkvision

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, 720x480 SVGA: 800x600 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA+: 1440x900 UXGA: 1600x1000 WSXGA+: 1680x1050	
Presets / user settings Viewing adjustments Rotating screen On screen display Control features USB hub Camera Multiple input Monitor connectors Signal cables Mounting features Security	Standard presets: 24; user settings: 20 <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, 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 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>Lenovo Easy Reach Monitor Stand</td> <td>55Y9258</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	Lenovo Easy Reach Monitor Stand	55Y9258
ThinkVision Soundbar	45K1263								
Kensington® MicroSaver® Cable Lock	73P2582								
Kensington Twin Head Cable Lock	45K1620								
Lenovo Easy Reach Monitor Stand	55Y9258								

Name	L2321x Wide Flat Panel Monitor	Features <ul style="list-style-type: none">• Widescreen 23-inch monitor• 1080p full HD support, HDCP-compliant• Function as two monitors, hardware based solution provides 4 patterns of screen split (2:1, 1:1, 1:2, PIP modes).• Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing• Compliance with ENERGY STAR 5.0• Arsenic free glass• Microsoft® Windows® 7 certified						
Case color	Business black							
Type-model	4014-HB6	 ThinkVision L2321x Wide Monitor						
Panel	TFT-LCD, twisted nematic (TN), CCFL backlight							
Viewable image size	23.0" (584mm) diagonal							
Max view area (W x H)	20.04" x 11.28" / 509.2mm x 286.4mm							
Optimum resolution	1920x1080							
Dual screen function	Function as two monitors (need both VGA and DisplayPort connected), hardware based solution provides 4 patterns of screen split (2:1, 1:1, 1:2, PIP)							
Aspect ratio	16:9							
Pixel pitch (mm)	.265mm							
Dot/Pixel per Inch	96 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							
Vertical frequency	50 to 75Hz							
Horizontal frequency	30 to 83kHz							
Viewing angle at 10:1 CR	170° (+/- 85°) horizontal, 160° (+/- 80°) vertical							
Stand	Tilt, swivel, pivot, and height adjustable stand							
Bezel width	<i>Sides: 0.69" (17.6mm); top: 0.72" (18.2mm); bottom: 0.79" (20.1mm)</i>							
Dimensions (HxWxD)	14.72-19.05" H x 21.49" W x 9.49" D; 373.9-483.9mm H x 545.9mm W x 241.1mm D							
Power supply	24 watts typical, 28 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)							
Weight	14.75 lb; 6.69kg							
Limited warranty ⁴	3 year (includes backlight)							
Available date	July 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 (TCO Certified Edge), WEEE, RoHS, EPEAT™ Gold rating							
Preset resolutions	NTSC, PAL, 640x350, 640x480, 800x600, 832x624, 960x1080, 1024x768, 1152x864, 1280x1024, 1280x1080, 1366x768, 1440x900, 1680x1050, 1920x1080							
Dual image resolution	(2:1): 1280x1080 + 640x1080 (1:2): 640x1080 + 1280x1080 (1:1): 960x1080 + 960x1080 (PIP): 640x480 in 1920x1080							
Presets / user settings	Presets: 26(VGA), 25(DisplayPort); 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, do not support image rotation under dual image modes)							
On screen display	On screen display with digital user controls (8 languages)							
Control features	Direct access (buttons on front) for automatic image setup and image select (Dual image [2:1, 1:1, 1:2, PIP modes], Swap, Single VGA, and Single DisplayPort)							
USB hub	USB 2.0 Hub (1 port into PC, 4 ports for accessories)							
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, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, analog signal cable, 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 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></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
ThinkVision Soundbar	45K1263							
Kensington® MicroSaver® Cable Lock	73P2582							
Kensington Twin Head Cable Lock	45K1620							

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	
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 Wall or desk mounting using the Radial Arm ³ or third-party accessories meeting the VESA FPMPI® (100mm mount) Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)	
Signal cables		
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	


ThinkVision L2440p Wide Monitor

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>Lenovo Easy Reach Monitor Stand</td><td>55Y9258</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	Lenovo Easy Reach Monitor Stand	55Y9258
ThinkVision Soundbar	45K1263								
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Lenovo Easy Reach Monitor Stand	55Y9258								



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)



ThinkCentre Extend Arm
(57Y4352)

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*
 ThinkCentre Extend Arm 57Y4352 *ann 07/06/10*
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)	Extend Arm (57Y4352)
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
L2021	x	x	x		x	x	x	x	x
L2060	x	x	x			x	x	x	x
L2230x	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
L2321x	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	
< L151p	x	x	x	x		x	x	x	
< L171	x	x		x		x	x	x	
< L171p	x	x	x	x		x	x	x	
< L172	x	x		x		x	x	x	
< L174	x*	x	x	x		x	x	x	
< L1700p	x	x	x	x		x	x	x	
< D185	x	x	x		x	x	x	x	
< L190x	x	x	x	x		x	x	x	
< L191	x	x		x		x	x	x	
< L192p	x	x	x	x		x	x	x	
< L193p	x	x	x	x		x	x	x	
< L194	x	x	x	x		x	x	x	
< L1940p	x	x	x	x		x	x	x	
< L200p	x	x	x	x		x	x	x	
< L201p	x	x	x	x		x	x	x	
< L215	x	x	x		x	x	x	x	
< L215p	x	x			x	x	x	x	
< L220x	x	x		x		x	x	x	
< L2240p	x	x	x	x		x	x	x	
< L2440x	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.

ThinkVision®

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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
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 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		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™
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		Available at these retailers <ul style="list-style-type: none">• B&H™• TigerDirect• Amazon.com• J&R™
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)		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 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 period ¹² via 877-453-6686
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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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

- **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**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**

Positioning	Netbook; consumer markets	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 Available at these retailers • lenovo.com • Fry's 40-watt AC adapter RoHS-compliant Limited Warranty¹² ➤ 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 period ¹² via 877-453-6686
Processor	Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache	
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	None	
SATA disk	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	
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**
- **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">• lenovo.com	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 ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ 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 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² 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 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			

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	<i>Netbook; consumer markets</i>										Preloaded operating system²⁰				
Processor	Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache										- 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; * 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										Preloaded applications¹⁴				
External combo SATA disk	None 160GB (5400 rpm) HDD / SATA 1.5Gb/s, 9.5mm high, 2.5" wide, not removable										• Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Lenovo Energy Management Software • VeriFace™ • Lenovo Quick Start • Ericsson Connection Manager				
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										40-watt AC adapter RoHS-compliant				
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														

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

Limited Warranty¹²

⇒ **Split warranty:**
1-year for display, disk, systemboard;
90-day for other parts

⇒ **EasyServ™ depot repair service¹⁹**

⇒ **International Warranty Service¹⁷**

⇒ **24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 800-426-7378**

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

- **Lenovo's netbook: smaller and lighter than a notebook**
- **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	<i>Netbook; consumer markets</i>									Preloaded operating system²⁰ - Genuine Windows® XP Home Edition			
Processor	Intel® Atom™ Processor N270 or N280 with single-core, Hyper-Threading technology, and 512KB L2 cache; <i>N270: 533MHz system bus; N280: 667MHz system bus</i>									Preloaded applications¹⁴ (only some listed) • 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)			
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: standard memory 1GB in socket; no socket available</i>												
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: (WxDxH): 10.2" x 7.2" x 0.7-1.0"; 258mm x 183mm x 18-25.4mm</i> <i>6-cell: (WxDxH): 10.2" x 7.6" x 0.7-1.8"; 258mm x 194mm x 18-44.7mm</i>												
Weight ²	<i>3-cell: starting at 2.20 lb (1.0 kg)</i> <i>6-cell: starting at 2.65 lb (1.2 kg)</i>												
Case color	<i>Top: black, white, gray, or pink, with pattern</i> <i>Palm rest: color matches top color</i> <i>Bottom: black bottom for black and gray top, white bottom for white and pink top</i>												
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic												
Battery - type	Lithium Ion, 6-cell												
Battery - life ¹⁰	<i>3-cell: up to 3.0 hr; 6-cell: up to 6.0 hr</i>												
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: Bluetooth 2.1 wireless, LED indicator</i>												
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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(MRA2-1) December 2009

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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- **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 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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(MRA2-2) December 2009

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	Gobi2000	Black	Bluetooth	6-cell	Starter	Jan 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 2010 preloaded; purchase product key to activate
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		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 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		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 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
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; Intel, Broadcom®, or Atheros chip		
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		
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		

See footnotes for important warranty information
US models announced January 18, 2010

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(MRA3-1) October 2010

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

- **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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 2010 preloaded; purchase product key to activate	
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	30-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant		
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		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 ➤ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686	
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, 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; Intel, Broadcom®, or Atheros chip			
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			

See footnotes for important warranty information
US model announced January 18, 2010

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Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	PCIe Mini card 802.11	PCIe Mini card WWAN	Top color	Bluetooth	Battery	Win7 preload	Avail date
0647-2AU	Atom N455	1.66	1GB	10.1" WSVGA	0.3M	GMA 3150	160GB ⁸	11b/g/n ²⁸		Black		6-cell	Starter	Jul 10
0647-2BU	Atom N455	1.66	1GB	10.1" WSVGA	0.3M	GMA 3150	250GB	11b/g/n		Black	Bluetooth	6-cell	Starter	Jul 10
0647-2EU	Atom N455	1.66	1GB	10.1" WSVGA	0.3M	GMA 3150	160GB	11b/g/n	Gobi2000	Black		6-cell	Starter	Jul 10

- *Lenovo's netbook: smaller and lighter than a notebook*
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- *Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype™ without booting into Windows*
- *These system are Microsoft® Office 2010 Product Key Ready (O10PKR)*

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N455 with single-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 667MHz) Hyper-Threading Technology, and 512KB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Starter Edition	
Memory	1GB std / 2GB max / PC3-10600 1333MHz DDR3* , non-parity, single-channel, one 204-pin SO-DIMM socket; <i>Non-italics:</i> standard memory 1GB in socket; no socket available * System automatically clocks down for processors with 667MHz DDR3 memory controller		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 2010 preloaded; purchase product key to activate	
Optical drive	None		<div>30-watt AC adapter</div> <div>Wireless on/off switch</div> <div>EPEAT™ Gold rating</div> <div>ENERGY STAR® 5.0-compliant</div> <div>RoHS-compliant</div>	
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			
Camera	Camera on top of screen, 0.3-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		<div>Limited Warranty¹²</div> <div>⇨ 1-year warranty*:</div> <div>* 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 options (in eligible locations):⁹</div> <div><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</div> <div>⇨ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686</div>	
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; <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; Intel, Broadcom®, or Atheros chip			
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			
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, internal USB 2.0 interface			
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™ certified			
Security	Power-on password, supervisor password, hard disk password			
Fingerprint reader	None			

See footnotes for important warranty information
US models announced July 7, 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
0647-35U	Atom N455	1.66	1GBx1	10.1" WSVGA	0.3M	GMA 3150	250GB ⁸	11b/g/n ²⁸	None	Black	None	6-cell	Starter	Aug 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)*
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- *OneKey™ Rescue System includes OneKey Recovery with press of recovery key*
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Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N455 with single-core, DMI (Direct Media Interface), integrated DDR3 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 2010 preloaded; purchase product key to activate
Memory	1GB std / 2GB max / PC3-10600 1333MHz DDR3* , non-parity, single-channel, one 204-pin SO-DIMM socket; <i>Non-italics:</i> standard memory 1GB in socket; no socket available * System automatically clocks down for processors with 667MHz DDR3 memory controller		
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, 0.3-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; <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; Intel, Broadcom®, or Atheros chip		
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™ certified		
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		
•	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 August 4, 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

- **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**
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- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 2010 preloaded; purchase product key to activate
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; Intel, Broadcom®, 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 period ¹² 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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 2010 preloaded; purchase product key to activate
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		30-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
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: (WxDxH): 10.6" x 6.6" x 0.6-1.1"; 270mm x 168mm x 16-28.5mm</i> <i>6-cell: (WxDxH): 10.6" x 6.6" x 0.6-1.4"; 270mm x 168mm x 16-34.3mm</i>		
Weight ²	<i>3-cell: starting at 2.43 lb (1.1 kg)</i> <i>6-cell: starting at 2.76 lb (1.25 kg)</i>		
Case color	<i>Top: white</i> <i>bottom: white</i> <i>Palm rest: white</i>		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 3-cell		
Battery - life ¹⁰	<i>3-cell: up to 3.5 hr; 6-cell: up to 7.0 hr</i>		
Chipset	Intel NM10 Express Chipset		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 ➤ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
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; Intel, Broadcom®, 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		

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
0651-86U	Atom N450	1.66	1GB	10.1" WSVGA	Multi	1.3M	GMA 3150	250GB	11b/g/n	Cosmic Night		4-cell	Starter	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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		
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 rotation		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 • 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
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 High Capacity 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; Intel, Broadcom®, or Atheros chip		
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™ certified		
Security	Power-on password, supervisor password, hard disk password, security keyhole		
Fingerprint reader	None		

See footnotes for important warranty information

US model announced August 4, 2010; previous models on January 18, 2010

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(CS2-1) August 2010

Type-model	Pro- cessor	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
0651-37U	N450	1.66	1GB DDR2	10.1" WSVGA	Multi	1.3M	GMA 3150	250GB ⁸	11b/g/n ²⁸	Cosmic Night	None	8-cell	Starter	Jan 10
0651-85U	N450	1.66	1GB DDR2	10.1" WSVGA	Multi	1.3M	GMA 3150	250GB	11b/g/n	Cosmic Night	None	4-cell	Prem 32	Aug 10
0651-7HU	N455	1.66	1GB DDR3	10.1" WSVGA	Multi	1.3M	GMA 3150	250GB	11b/g/n	Cosmic Night	None	4-cell	Prem 32	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 or Intel Atom Processor N455 with single-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 667MHz), integrated graphic controller, Hyper-Threading Technology, and 512KB L2 cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Starter Edition - Some: Genuine Windows® 7 Home Premium 32 Preloaded applications¹⁴ (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 • BumpTop™ • Microsoft® Research AutoCollage Touch (Home Premium only) • Microsoft Office 2010 preloaded; purchase product key to activate				
Memory	1GB std / 2GB max / Some: PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, one 200-pin SO-DIMM socket; Some: PC3-10600 1333MHz DDR3* , non-parity, dual-channel capable, one 204-pin SO-DIMM socket; * System automatically clocks down for processors with 667MHz DDR3 memory controller														
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 rotation														
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	4-cell: (WxDxH): 11.0" x 6.9" x 0.6-1.1"; 280mm x 174mm x 15-27.6mm 8-cell: (WxDxH): 11.1" x 8.0" x 0.6-1.4"; 282mm x 202mm x 15-35.0mm														
Weight ²	4-cell: starting at 2.76 lb (1.25 kg) 8-cell: starting at 3.31 lb (1.50 kg)														
Case color	Top: black color with different pattern bottom: black Palm rest: White														
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion, 4-cell or Hybrid 8-cell														
Battery - life ¹⁰	4-cell: up to 4 hr; 8-cell: 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 High Capacity 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; Intel, Broadcom®, or Atheros chip														
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™ certified														
Security	Power-on password, supervisor password, hard disk password, security keyhole														
Fingerprint reader	None														

See footnotes for important warranty information

US models announced August 4, 2010; previous models on January 18, 2010

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(CS2-2) August 2010



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 <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
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	40-watt AC adapter wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
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	3-cell: (WxDxH): 11.5" x 8.5" x 0.9-1.1"; 292mm x 216mm x 22-28.9mm 6-cell: (WxDxH): 11.5" x 9.1" x 0.9-1.4"; 292mm x 230mm x 22-36mm	
Weight ²	3-cell: starting at 3.09 lb (1.4 kg) 6-cell: 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 <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
Case color	Top: black or white, with fashion pattern Palm rest: color matches top color Bottom: 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	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	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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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	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
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	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	Available at these retailers • lenovo.com	40-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		
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®)		
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	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	
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 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	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 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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(MC1-2) August 2009

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		40-watt AC adapter wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
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	3-cell: (WxDxH): 11.5" x 8.5" x 0.9-1.1"; 292mm x 216mm x 22-28.9mm 6-cell: (WxDxH): 11.5" x 9.1" x 0.9-1.4"; 292mm x 230mm x 22-36mm		
Weight ²	3-cell: starting at 3.09 lb (1.4 kg) 6-cell: starting at 3.42 lb (1.55 kg)		
Case color	Top: black or white, with fashion pattern Palm rest: color matches top color Bottom: 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	3-cell: up to 3.0 hr; 6-cell: 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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Lenovo IdeaPad U160



Lenovo IdeaPad U160



Lenovo IdeaPad U160
black cover



Lenovo IdeaPad U160
red cover



Lenovo IdeaPad U160
red cover



Lenovo IdeaPad U160
red cover

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	PCIe Mini Card 802.11	Top color	Bluetooth	Battery	Win7 preload	Avail date
0894-5JU	i5-520UM	1.06	1.86	4GB	11.6" HD	1.3M	Intel HD	320GB ⁸	11b/g/n ²⁸	Black	Bluetooth	6-cell	Prem 32	Jun 10
0894-55U	i7-640UM	1.20	2.26	4GB	11.6" HD	1.3M	Intel HD	500GB	11b/g/n	Black	Bluetooth	6-cell	Prem 64	Jun 10
0894-59U	i7-640UM	1.20	2.26	4GB	11.6" HD	1.3M	Intel HD	500GB	11b/g/n	Red	Bluetooth	6-cell	Prem 64	Jun 10

- **Thin and light design for easy mobility**
- **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® Advanced Audio™ certified audio system with stereo speakers (1.5 watt x 2)**
- **HDMI port, HDCP-compliant**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Widescreen flexibility; one-spindle Intel® Core™ i5 processor i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology, 3MB cache or Intel Core i7 processor i7-640UM with dual-core, DMI, integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology, and 4MB 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 • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live™ Essential • CyberLink YouCam • ooVoo™ • Lenovo ReadyComm • Lenovo Energy Management Software • Lenovo DirectShare • VeriFace™ • Lenovo Security Suite • Microsoft Office 2010 preloaded; purchase product key to activate			
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	None													
Optical drive	None													
SATA disk	320GB (5400 rpm) or 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, 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 HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI connector, HDCP-compliant													
Keyboard	Full-size keyboard, 6-row, multimedia 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 7.6" x 0.89"; 290mm x 193mm x 22.5mm													
Weight ²	6-cell: starting at 3.09 lb (1.4kg)													
Case color	Top: black or red top with texture; Bottom: black or red bottom, color matches top color													
Case material	Top: Aluminum Bottom: PC/ABS													
Battery - type	Lithium Ion, 6-cell													
Battery - life ¹⁰	6-cell: up to 7 hr													
Chipset	Mobile Intel HM55 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	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 PCI Express Mini Card slots													
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card adapter, Broadcom® BCM4313 or Atheros® AR9285													
Bluetooth™	Bluetooth 2.1 wireless, internal USB 2.0 interface													
Modem	None													
Ethernet	Gigabit ethernet, Atheros AR8131													
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / stereo speakers (1.5 watt x 2), Dolby® Advanced Audio™ certified / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)													
Security	Administrator password, hard disk password, security keyhole													
Fingerprint reader	None													

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

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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	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 9.5mm high, tray-in		
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 (1280x800) TFT color, VibrantView (glossy), LED backlight , 300 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 4500MHD (GMA 4500MHD), in GM45		
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn 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): 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 High Capacity 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		

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

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
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	✧ 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)
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	(WxDxH): 12.5" x 9.3" x 0.9-1.1"; 318mm x 237mm x 23-28mm 6-cell: starting at 4.32 lb (1.96kg) Black or high glossy black top, black bottom Top: magnesium-aluminum alloy; Bottom: 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 High Capacity 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 ¹⁶ 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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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	<i>Widescreen flexibility; one-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• 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; <i>Non-italics:</i> standard memory in one socket; one socket available		
Diskette drive	None		
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		

| 65-watt AC adapter Wireless on/off switch EPEAT™ Silver 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 period¹² via 877-453-6686 | | |

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 system ²⁰ - 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 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 • 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™	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 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
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	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	<i>4-cell:</i> starting at 3.52 lb (1.6kg); <i>8-cell:</i> 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	<i>4-cell:</i> up to 5 hr; <i>8-cell:</i> 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	<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	
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 April 7, 2010; previous models on October 23, 2009

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(CRM1-2) April 2010

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	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 <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	
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	<i>6-cell:</i> 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	
Battery - life ¹⁰	<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	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	

| 65-watt AC adapter Wireless on/off switch EPEAT™ Silver 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 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** | |

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**

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	<i>Widescreen flexibility; two-spindle</i> 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	<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 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 ⇒ 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 models announced October 23, 2009

❖ Intel Centrino® 2 processor technology

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Lenovo IdeaPad U460/U460s



Lenovo IdeaPad U460/U460s



Lenovo IdeaPad U460/U460s



Lenovo IdeaPad U460/U460s



Lenovo IdeaPad U460/U460s



Lenovo IdeaPad U460/U460s

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	PCIe Mini Card 802.11	Top color	Finger print reader	Blue-tooth	Battery	Win7 preload	Avail date
0877-23U	i3-350M	2.26	None	2GBx2	14.0" HD	1.3M	Intel HD	500GB ⁸	Intel 1000 ²⁸	Black	Fing	Blue	8-cell	Prem 64	Jul 10

- **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® Advanced Audio™ system with two stereo speakers**
- **HDMI port, HDCP-compliant**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Widescreen flexibility; one-spindle Intel® Core™ i3-350M 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) <ul style="list-style-type: none">• Lenovo™ OneKey Recovery• Lenovo ReadyComm• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Fingerprint Software• Windows Live™ Essential• CyberLink YouCam• VeriFace™• Lenovo Energy Management Software• Lenovo DirectShare• Lenovo Security Suite• ooVoo™• Microsoft Office 2010 preloaded; purchase product key to activate 65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets;		
Diskette drive	None		
SATA optical drive	None		
SATA disk	500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™		
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		
Integrated graphics	Intel HD Graphics in processor, External monitor support via analog VGA DB-15 connector / digital HDMI connector		
Keyboard	Full-size keyboard, 6-row, Fn keys, recovery button		
Touch controls	Power plan button and mute button		
Light sensor	Ambient light sensor		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	(WxDxH): 13.3" x 9.3" x 0.8-1.0"; 338mm x 235mm x 21-24.9mm		
Weight ²	8-cell: starting at 4.3 lb (1.95kg)		
Case color	Black top with square weave texture, black bottom, and silver palm rest		
Case material	Top and palm rest: PC/ABS with Aluminum cover; bottom: PC/ABS		
Battery - type	Lithium Ion 8-cell		
Battery - life ¹⁰	8-cell: up to 6 hr		
Chipset	Mobile Intel HM55 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 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, two full size and one half size		
Intel 1000 ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
Bluetooth™	Bluetooth 2.1 wireless, internal USB 2.0 interface		
Modem	None		
Ethernet	Gigabit ethernet, Atheros® AR8131M		
Audio support	High Definition (HD) Audio, RealTek AD259 codec / stereo speakers (1.5 watt x 2), Dolby® Advanced Audio™ system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	User password, supervisor password, hard disk password, security keyhole		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor		

| | | | **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 |

See footnotes for important warranty information
US model announced July 28, 2010

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Type-model	Processor	Max turbo GHz (GHz)	Memory	Widescreen display	Cam- era	Switchable graphics	SATA disk	PCIe Mini Card 802.11	Top color	Finger print reader	Blue- tooth	Battery	Win7 preload	Avail date
0877-22U	i5-450M	2.40 2.66	2GBx2	14.0" HD	1.3M	Intel HD, GeF 305M	500GB ⁸	Intel 1000 ²⁸	Black	Fing	Blue	8-cell	Prem 64	Jul 10

- **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® Advanced Audio™ system with two stereo speakers**
- **HDMI port, HDCP-compliant**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Widescreen flexibility; one-spindle 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 • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Fingerprint Software • Windows Live™ Essential • CyberLink YouCam • VeriFace™ • Lenovo Energy Management Software • Lenovo DirectShare • Lenovo Security Suite • ooVoo™ • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets;		
Diskette drive	None		
SATA optical drive	None		
SATA disk	500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™		
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		
Switchable graphics	Switches between discrete and integrated graphics via graphics mode software Intel HD Graphics in processor, and NVIDIA® GeForce® 305M , PCI Express® x16, 512MB memory, DirectX® 10.1, NVIDIA PureVideo® HD technology, External monitor support via analog VGA DB-15 connector / digital HDMI connector		
Keyboard	Full-size keyboard, 6-row, Fn keys, recovery button		
Touch controls	GPU switch button, power plan button, and mute button		
Light sensor	Ambient light sensor		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	(WxDxH): 13.3" x 9.3" x 0.8-1.0"; 338mm x 235mm x 21-24.9mm		
Weight ²	8-cell: starting at 4.3 lb (1.95kg)		
Case color	Black top with square weave texture, black bottom, and silver palm rest		
Case material	Top and palm rest: PC/ABS with Aluminum cover; bottom: PC/ABS		
Battery - type	Lithium Ion 8-cell		
Battery - life ¹⁰	8-cell: up to 6 hr		
Chipset	Mobile Intel HM55 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 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, two full size and one half size		
Intel 1000 ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
Bluetooth™	Bluetooth 2.1 wireless, internal USB 2.0 interface		
Modem	None		
Ethernet	Gigabit ethernet, Atheros® AR8131M		
Audio support	High Definition (HD) Audio, RealTek AD259 codec / stereo speakers (1.5 watt x 2), Dolby® Advanced Audio™ system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	User password, supervisor password, hard disk password, security keyhole		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor		

See footnotes for important warranty information
US model announced July 28, 2010

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IdeaPad™ U460s (0885) - Switchable (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Widescreen display	Cam-era	Switchable graphics	SATA disk	PCIe Mini Card 802.11	Top color	Finger print reader	Blue-tooth	Battery	Win7 preload	Avail date
0885-25U	i3-330UM	1.20	None	2GBx2	14.0" HD	1.3M	Intel HD, GeF 305M	320GB ⁸	11b/g/n ²⁸	Black	Fing	Blue	8-cell	Prem 64	Jul 10
0885-26U	i3-330UM	1.20	None	2G+1G	14.0" HD	1.3M	Intel HD, GeF 305M	250GB	11b/g/n	Black	Fing	Blue	8-cell	Prem 32	Jul 10

- 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® Advanced Audio™ system with two stereo speakers
- HDMI port, HDCP-compliant
- Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Widescreen flexibility; one-spindle Intel® Core™ i3 processor i3-330UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Hyper-Threading technology and 3MB 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 (60 days of virus definitions) • Adobe® Reader® • Fingerprint Software • Windows Live™ Essential • CyberLink YouCam • VeriFace™ • Lenovo Energy Management Software • Lenovo DirectShare • Lenovo Security Suite • ooVoo™ • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets;	
Diskette drive SATA optical drive SATA disk	None None 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™	
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	
Switchable graphics	Switches between discrete and integrated graphics via graphics mode software Intel HD Graphics in processor, and NVIDIA® GeForce® 305M , PCI Express® x16, 512MB memory, DirectX® 10.1, NVIDIA PureVideo® HD technology, External monitor support via analog VGA DB-15 connector / digital HDMI connector	
Keyboard Touch controls Light sensor Touch pad	Full-size keyboard, 6-row, Fn keys, recovery button GPU switch button, power plan button, and mute button 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	(WxDxH): 13.3" x 9.3" x 0.8-1.0"; 338mm x 235mm x 21-24.9mm <i>8-cell</i> : starting at 4.3 lb (1.95kg) Black top with square weave texture, black bottom, and silver palm rest <i>Top and palm rest:</i> PC/ABS with Aluminum cover; <i>bottom:</i> PC/ABS	
Battery - type Battery - life ¹⁰	Lithium Ion 8-cell <i>8-cell:</i> up to 8 hr	
Chipset ExpressCard/34 Multicard reader	Mobile Intel HM55 Express Chipset None 5-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital 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 PCIe Mini Card 11b/g/n ²⁸ Bluetooth™ Modem Ethernet Audio support	None Three PCIe Mini Card slots, two full size and one half size 11b/g/n wireless ⁴ , PCIe Mini Card, Broadcom® or Atheros® chip Bluetooth 2.1 wireless, internal USB 2.0 interface None Gigabit ethernet, Atheros® AR8131M High Definition (HD) Audio, RealTek AD259 codec / stereo speakers (1.5 watt x 2), Dolby® Advanced Audio™ system / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm) User password, supervisor password, hard disk password, security keyhole Fingerprint reader on palm rest, swipe sensor	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 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
Security Fingerprint reader		

See footnotes for important warranty information
US models announced July 28, 2010

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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	<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®• Fingerprint Software• 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) 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	65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
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	
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)	
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	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 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 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
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) <ul style="list-style-type: none">• 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 <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 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



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Lenovo IdeaPad V460

IdeaPad™ V460 (0886) - GMA (Windows 7) - web models

Personal Systems Reference (PSREF)

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	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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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) <ul style="list-style-type: none">• Lenovo OneKey Recovery• Lenovo ReadyComm• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Adobe® Reader®• Windows Live Essential• CyberLink YouCam• Microsoft Office 2010 preloaded; purchase product key to activate• 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		65-watt AC adapter Wireless on/off switch 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		
Keyboard	Full-size keyboard, 6-row, recovery key		
Touch controls	Touch-sensitive buttons for volume +/-, mute, and Lenovo Security Suite		
Light sensor	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
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, SDHC 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		

See footnotes for important warranty information
US model announced March 24, 2010

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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
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

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 2010 preloaded; purchase product key to activate • 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		65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
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, SDHC 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		

See footnotes for important warranty information
US model announced March 24, 2010

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ideapad



Lenovo IdeaPad Y460



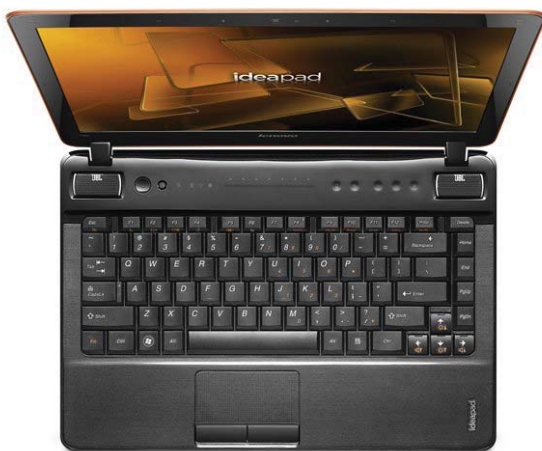
Lenovo IdeaPad Y460



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
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

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	
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) <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 2010 preloaded; purchase product key to activate• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Media Show• Lenovo DirectShare• Lenovo SlideNav	
Diskette drive	None		65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating 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	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 HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI, HDCP-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	
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: 6-cell: 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 High Capacity 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 system²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications¹⁴ (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 2010 preloaded; purchase product key to activate 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> : 4.85 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	90-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
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 High Capacity Card, xD-Picture Card™)	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
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™	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™ 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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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	
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) <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 2010 preloaded; purchase product key to activate VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Media Show• Lenovo DirectShare• Lenovo SlideNav	
Diskette drive	None		90-watt AC adapter Wireless on/off switch EPEAT™ Gold rating 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	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		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	
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			
Weight ²	with optical drive and battery: 6-cell: 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 High Capacity 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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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	65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating Some: ENERGY STAR® 5.0-compliant RoHS-compliant
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, 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	Limited Warranty¹² ➤ 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
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)	
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 4.5 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 High Capacity 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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(BM2-1) August 2009

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 system²⁰ - 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 applications¹⁴ (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
Diskette drive	None	65-watt AC adapter Wireless on/off switch EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant
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) 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	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
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, 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)	
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 4.5 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 High Capacity 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	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 December 17, 2009

* Intel Centrino® processor technology

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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 High Capacity 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: <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 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 High Capacity 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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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 High Capacity 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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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

Type-model	Pro- cessor	Max Base turbo (GHz)	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Chipset	Discrete graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue- tooth	Win7 preload	Avail date
3241-56U	i7-720QM	1.60	2.80	4GB	15.6" HD	LED	1.3M	PM55	GT240M	500GB ⁸	DVD±RW	Intel 5300 ²⁸	Black	Blue	Prem 64	Dec 09
3241-58U	i3-330M	2.13		4GB	15.6" HD	LED	1.3M	HM55	GT240M	500GB	DVD±RW	Intel 6200	Black	Blue	Prem 64	Apr 10

- **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™ 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 i7 processor i7-720QM 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, and 6MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Home Premium 64-bit Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • 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	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 buttons															
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 or 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 High Capacity 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	None															
Mini PCI Express	Three Mini PCI Express slots															
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel WiFi Link 5300, 3x3 (Shirley Peak)															
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2															
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

⁸ US model announced April 7, 2010; previous model on December 17, 2009

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(BM3-2) April 2010

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 (MHz)	Widescreen display	CCFL or LED	Cam- era	Integrated graphics	SATA disk GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	Top color	Blue- tooth	Win7 preload	Avail date
0646-55U	i3-370M	2.40		2GBx2	1066	15.6" HD	LED	1.3M Intel HD	500GB 5400	DVD±RW	11b/g/n ²⁸	Black	None	Prem 64	Aug 10
0646-53U	i5-460M	2.53	2.80	2GBx2	1066	15.6" HD	LED	1.3M Intel HD	500GB 5400	DVD±RW	11b/g/n	Black	None	Prem 64	Aug 10
0646-52U	i5-460M	2.53	2.80	4+2GB	1066	15.6" HD	LED	1.3M Intel HD	500GB 5400	DVD±RW	11b/g/n	Black	None	Prem 64	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-370M 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 i5-460M 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 - Genuine Windows® 7 Home Premium 64 Preloaded applications¹⁴ (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 2010 preloaded; purchase product key to activate VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo DirectShare • Lenovo SlideNav					
Memory	4GB or 6GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets													
Diskette drive	None													
SATA optical	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													
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, 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 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 High Capacity 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													
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Half Mini Card, Broadcom® chip or Atheros® chip													
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 August 25, 2010

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(HWI1-5) August 2010

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**

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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 system²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications¹⁴ (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 2010 preloaded; purchase product key to activate • 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 High Capacity 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 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 models announced February 16, 2010

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(HW11-1) March 2010

Type-model	Pro- cessor	Max turbo GHz (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
0646-54U	i7-740QM	1.73	2.93	2GBx2 1333	15.6" HD	LED	1.3M HD 5730	500GB 5400	DVD±RW	11b/g/n ²⁸	Black	None	Prem 64	Aug 10
0646-56U	i7-740QM	1.73	2.93	4+2GB 1333	15.6" HD	LED	1.3M HD 5730	640GB 5400	Blu-ray	11b/g/n	Black	None	Prem 64	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i7 processor i7-740QM 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 2010 preloaded; purchase product key to activate• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Media Show• Lenovo DirectShare• Lenovo SlideNav 120-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
Memory	4GB or 6GB std / 8GB max ⁷ ; PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Diskette drive	None		
SATA optical	Some: DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in Some: Blu-ray™ Disc reader (no Blu-ray burning), DVD recordable, 12.7mm, tray-in		
SATA disk	500GB (5400 rpm) or 640GB (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	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 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 High Capacity 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		
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Half Mini Card, Broadcom® chip or Atheros® chip		
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		

| **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 ⇒ **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 August 25, 2010

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Type-model	Pro- cessor	Max turbo GHz	Memory	Widescreen display	CCFL or LED	Switchable graphics	SATA disk	mSATA SSD	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	Intel HD, HD 5730	500GB ⁸		DVD±RW	Intel 1000 ²⁸	Black	None	Prem 64	Mar 10
0646-22U	i5-430M	2.26	2.53 4GB	15.6" HD	LED	Intel HD, HD 5730	500GB		DVD±RW	Intel 1000	Black	None	Prem 64	Mar 10
0646-2YU	i5-460M	2.53	2.80 4GB	15.6" HD	LED	Intel HD, HD 5730	500GB	32GB	Blu-ray	11b/g/n ²⁸	Black	None	Prem 64	Aug 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

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 or i5-460M 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 - Genuine Windows® 7 Home Premium 64 Preloaded applications¹⁴ (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 2010 preloaded; purchase product key to activate 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 optical	<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in	
SATA disk	<i>Some:</i> Blu-ray™ Disc reader (no Blu-ray burning), DVD recordable, 12.7mm, tray-in	
mSATA™ SSD	500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high <i>Some:</i> 32GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot	
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	90-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant 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
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: <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 High Capacity 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 ²⁸	<i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2	
11b/g/n ²⁸	<i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Broadcom® chip or Atheros® chip	
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 model announced August 25, 2010; previous models on March 11, 2010

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(HW11-3) August 2010

Type-model	Pro- cessor	Max turbo GHz (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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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) • Lenovo OneKey Recovery • Lenovo ReadyComm • ooVoo™ • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Adobe® Reader® • Windows Live Essential • CyberLink YouCam • Microsoft Office 2010 preloaded; purchase product key to activate • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo DirectShare • Lenovo SlideNav 120-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
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	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	500GB (7200 rpm) / SATA 3.0Gb/s, 9.5mm high		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
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	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: <i>6-cell</i> : 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 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 High Capacity 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 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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(HW11-2) March 2010

Limited Warranty¹²

⇒ **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™ Y560d (0646) - 3D (Windows 7) - web models

Personal Systems Reference (PSREF)

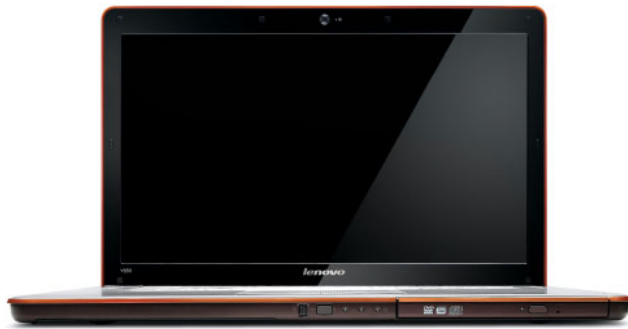
Type-model	Pro- cessor	GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Cam- era	Discrete graphics	SATA disk GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	Top color	Blue- tooth	Win7 preload	Avail date
0646-2NU	i7-720QM	1.60	2.80	2GBx2	15.6" HD (3D)	LED	1.3M	HD 5730	500G 7200	DVD±RW	Intel 6200 ²⁸	Black	Blue	Prem 64	Oct 10
0646-57U	i7-740QM	1.73	2.93	4+2GB	15.6" HD (3D)	LED	1.3M	HD 5730	500G 7200	DVD±RW	Intel 6200	Black	Blue	Prem 64	Oct 10

- 15.6" widescreen, glossy display with LED backlight
- 3D panel and glasses - enjoy compatible games and movies in 3D vision
- 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
- These system are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i7 processor i7-720QM or i7-740QM 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 2010 preloaded; purchase product key to activate VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerDVD (3D models)• TriDef Media Player (3D models)• Lenovo DirectShare• Lenovo SlideNav 120-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Memory	4GB or 6GB std / 8GB max ⁷ ; PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Diskette drive	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
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	500GB (7200 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, with 3D panel		
3D glasses	3D glasses and clip-on lenses for conversion of normal optical glasses		
Camera	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	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 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 High Capacity 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 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2		
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 September 28, 2010

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(HW11-6) October 2010



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650



Lenovo IdeaPad Y650

Part number	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
59019001	P8600	2.40	4GB	16.0" WXGA	LED	Cam	GMA	320GB ⁸	DVD±RW	Intel 5100 ²⁸	Black	Blue	ES50	Prem 64	Apr 09
59018999	P8600	2.40	4GB	16.0" WXGA	LED	Cam	GMA	320GB	DVD±RW	Intel 5100	Black	Blue	ES50	Prem 64	May 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 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 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		
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		
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: <i>6-cell</i> : 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 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) One slot (ExpressCard/34)		
ExpressCard/34 Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital High Capacity 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)		
Security Fingerprint reader	Hard disk password, user password, supervisor password, security lockhole None		
			Available at these retailers • TigerDirect
			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 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

See footnotes for important warranty information

♦ Intel Centrino® 2 processor technology

Ⓢ US model announced May 27, 2009; previous models on April 7, 2009

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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

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;	
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	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
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	
Camera	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content	Available at these retailers • lenovo.com 65-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Integrated graphics	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	
Keyboard Touch controls Light sensor Touch pad	Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	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
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) One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital High Capacity Card, xD-Picture Card™) Two USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, eSATA port	
ExpressCard/34 Multicard reader	TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	
Ports	None Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 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 None	
Security Fingerprint reader		

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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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 High Capacity 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)		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	Hard disk password, user password, supervisor password, security lockhole 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	None		Available at these retailers • lenovo.com
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in		
SATA disk	320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable		90-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Widescreen display	16.0" (406.4mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 300 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		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
Discrete graphics	NVIDIA® GeForce® G105M , PCI Express® x16, 256MB memory, DirectX® 10, PureVideo® HD technology, VGA, HDMI, HDCP-compliant		
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	(WxDxH): 15.4" x 10.2" x 1.0"; 390mm x 260mm x 26mm		
Weight ²	with optical drive and battery: <i>6-cell</i> : 5.62 lb (2.55 kg)		
Case color	Black top with engraved pattern, black bottom		
Case material	<i>Top</i> : carbon fiber reinforced plastic; <i>Bottom</i> : magnesium-aluminum alloy		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	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	One slot (ExpressCard/34)		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital High Capacity 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™	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
US models announced February 24, 2009

✚ Intel Centrino® 2 processor technology

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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														
Positioning Processor	Widescreen flexibility Intel® Pentium® processor T3200 with dual-core , 667MHz system bus, and 1MB L2 cache									Preloaded operating system²⁰ - Genuine Windows® Vista® Home Premium 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>Italics:</i> standard memory in both sockets; no sockets available									Preloaded applications¹⁴ • 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) • Napster™ To Go® • WildGames™ • Carbonite Online Backup • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)				
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in									Available at these retailers • lenovo.com				
Primary SATA disk	160GB (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													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content									135-watt AC adapter Wireless on/off switch RoHS-compliant 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				
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys													
Numeric keypad	Numeric keypad on right of keyboard													
Game Zone	None													
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	<i>Top:</i> dark blue, flat 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 ExpressCard/34 or ExpressCard/54													
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital High Capacity Card, xD-Picture Card™)													
Ports	Four USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
TV tuner	None													
Mini PCI Express	One Mini PCI Express slot													
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
Bluetooth™	None													
Modem	None													
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 September 16, 2008

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 (MB2-2) September 2008

- **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**

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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 (MB2-3) June 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
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 High Capacity, 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 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 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, 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
²⁸ 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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	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 High Capacity 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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(MB2-4) June 2009



Lenovo IdeaPad Z360



Lenovo IdeaPad Z360



Lenovo IdeaPad Z360



Lenovo IdeaPad Z360



Lenovo IdeaPad Z360



Lenovo IdeaPad Z360

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
0912-33U	i3-350M	2.26	3GB	13.3" HD	LED	1.3M	Intel HD	500GB ⁸	DVD±RW	WiMAX	Black	Bluetooth	Prem 64	Jul 10
<ul style="list-style-type: none">• 13.3" 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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)														
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										Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64			
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 2010 preloaded; purchase product key to activate• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Lenovo DirectShare			
Diskette drive	None										65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant			
SATA DVD±RW SATA disk	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high													
Widescreen display	13.3" (337.8mm) HD (WXGA1366x768) TFT color, VibrantView (glossy); LED backlight , 200 nits, 16:9 aspect ratio, 500:1 contrast ratio										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			
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													
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): 12.9" x 8.6" x 0.8" to 1.3"; 327mm x 219mm x 20mm to 34mm													
Weight ²	with optical drive and battery: <i>6-cell</i> : 4.41 lb (2.0kg)													
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 5 hr													
Chipset	Mobile Intel HM55 Express Chipset													
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													
PCIe Mini Card	One PCIe Mini Card slot													
WiMAX	11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX													
Bluetooth™	Bluetooth 2.1 wireless, internal USB 2.0 interface													
Modem	None													
Ethernet	10/100M ethernet, Atheros® AR8152													
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / stereo speakers (2 watt x 2), Dolby Advanced Audio™ certified / 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 July 7, 2010

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 (LL71-1) July 2010

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
0912-32U	i5-450M	2.40	2.66	4GB	13.3" HD	LED	1.3M	GeForce G310M	500GB ⁸	DVD±RW	WiMAX	Black	Blue	Prem 64	Jul 10
<ul style="list-style-type: none">• 13.3" 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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
Positioning Processor	Widescreen flexibility; two-spindle 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				
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) <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 2010 preloaded; purchase product key to activate• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Lenovo DirectShare				
Diskette drive	None										65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating 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	500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high														
Widescreen display	13.3" (337.8mm) HD (WXGA1366x768) 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, 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										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				
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): 12.9" x 8.6" x 0.8" to 1.3"; 327mm x 219mm x 20mm to 34mm														
Weight ²	with optical drive and battery: 6-cell: 4.41 lb (2.0kg)														
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 4.5 hr														
Chipset	Mobile Intel HM55 Express Chipset														
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														
PCIe Mini Card	One PCIe Mini Card slot														
WiMAX	11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX														
Bluetooth™	Bluetooth 2.1 wireless, internal USB 2.0 interface														
Modem	None														
Ethernet	10/100M ethernet, Atheros® AR8152														
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / stereo speakers (2 watt x 2), Dolby Advanced Audio™ certified / 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 July 7, 2010

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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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)														
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 2010 preloaded; purchase product key to activate• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Lenovo DirectShare			
Diskette drive	None										65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating 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	14.0" (355.6mm) HD (WXGA1366x768) 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, 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										Limited Warranty¹² ⇨ 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			
Keyboard	Full-size keyboard, 6-row, recovery button													
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): 13.4" x 9.1" x 0.7" to 1.4"; 340mm x 231.8mm x 17.2mm to 34.4mm													
Weight ²	with optical drive and battery: 6-cell: 4.85 lb (2.2 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 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" HD	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" HD	LED	1.3M	Intel HD	320GB	DVD±RW	11b/g/n	Black	None	Prem 64	May 10
0914-37U	i5-450M	2.40	2.66	4GB	15.6" HD	LED	1.3M	Intel HD	320GB	DVD±RW	11b/g/n	Black	None	Prem 64	May 10
0914-3NU	i3-370M	2.40		4GB	15.6" HD	LED	0.3M	Intel HD	500GB	DVD±RW	11b/g/n	Black	None	Prem 64	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ i3 processor i3-330M, i3-350M or i3-370M 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 2010 preloaded; purchase product key to activate • 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, 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 ⇨ 24x7¹⁶ 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 certified / 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 August 25, 2010; previous models on 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
0914-3AU	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	2.66	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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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) <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 2010 preloaded; purchase product key to activate• 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			
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™	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 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 2010 preloaded; purchase product key to activate 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	
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: 6-cell: 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			

| | | **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 | |

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
<ul style="list-style-type: none">• 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• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
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				
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) <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 2010 preloaded; purchase product key to activate VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Lenovo DirectShare				
Diskette drive	None										65-watt AC adapter Wireless on/off switch EPEAT™ Gold rating 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	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														
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										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 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				
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														
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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Type-model	Pro- cessor	GHz	Cores	Memory	Widescreen display	CCFL or LED	Cam- era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Ethernet	Blue- tooth	Win7 preload	Avail date
4311-35U	N530	2.50	2	4GB	15.6" HD	LED	1.3M	HD 4270	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	1000M	None	Prem 64	Jul 10
4311-36U	N830	2.10	3	4GB	15.6" HD	LED	1.3M	HD 4270	320GB	DVD±RW	11b/g/n	Black	1000M	None	Prem 64	Jul 10
4311-3CU	P540	2.40	2	4GB	15.6" HD	LED	0.3M	HD 4270	500GB	Blu-ray	11b/g/n	Black	100M	None	Prem 64	Aug 10
4311-3DU	P540	2.40	2	4GB	15.6" HD	LED	0.3M	HD 4270	500GB	DVD±RW	11b/g/n	Black	100M	None	Prem 64	Aug 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Widescreen flexibility; two-spindle AMD® Turion™ II Dual-Core Mobile processor N530 or P540 with dual-core, integrated DDR3 memory controller, and 2MB L2 cache or AMD Phenom™ II Triple-Core Mobile processor N830 with triple-core, integrated DDR3 memory controller, and 1.5MB L2 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 2010 preloaded; purchase product key to activate 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 optical	<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in <i>Some:</i> Blu-ray™ Disc reader (no Blu-ray burning), DVD recordable, 12.7mm, 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, 0.3-megapixel or 1.3-megapixel, fixed focus, LED indicator															
Integrated graphics	ATI™ Mobility Radeon™ HD 4270 Graphics , in M880G, 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															
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion 6-cell															
Battery - life ¹⁰	Up to 4 hr															
Chipset	AMD M880G Chipset , SB820M south bridge															
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	<i>Some:</i> 10/100M ethernet, Atheros AR8152 <i>Some:</i> Gigabit ethernet, Atheros AR8151															
Audio support	High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2), Dolby Advanced Audio™ certified / 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 August 25, 2010; previous models on July 7, 2010

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Type-model	Pro- cessor	GHz	Cores	Memory	Widescreen display	CCFL or LED	Cam- era	Discrete graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Numeric Keypad	Blue- tooth	Win7 preload	Avail date
4311-37U	P520	2.30	2	4GB	15.6" HD	LED	0.3M	HD 5470	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	Keypad	None	Prem 64	Jul 10
4311-34U	N530	2.50	2	4GB	15.6" HD	LED	0.3M	HD 5470	320GB	DVD±RW	11b/g/n	Black	Keypad	None	Prem 64	Jul 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
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Widescreen flexibility; two-spindle AMD® Turion™ II Dual-Core Mobile processor P520 or N530 with dual-core, integrated DDR3 memory controller, and 2MB L2 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 2010 preloaded; purchase product key to activate • VeriFace™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Lenovo DirectShare 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 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
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, 12.7mm high, tray-in 320GB (5400 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, 0.3-megapixel, fixed focus, LED indicator		
Discrete graphics	ATI™ Mobility Radeon™ HD 5470 , PCI Express® x16, 512MB memory, DirectX® 11, ATI Avivo™ HD, VGA connector, HDMI connector, HDCP-compliant		
Keyboard Numeric keypad Touch controls	Full-size keyboard, 6-row, recovery button Numeric keypad on right of keyboard 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): 14.8" x 9.8" x 0.7" to 1.4"; 376.8mm x 249.8mm x 17.3mm to 34.9mm with optical drive and battery: 6-cell: 5.73 lb (2.6 kg) Black top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell Up to 3.5 hr		
Chipset ExpressCard/34 Multicard reader	AMD M880G Chipset , SB820M south bridge 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 Gigabit ethernet, Atheros AR8151 High Definition (HD) Audio, Conexant® CX20671 codec / stereo speakers (2 watt x 2), Dolby Advanced Audio™ certified / 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 models announced July 7, 2010

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**Partial list of accessories supported on:
IdeaPad S10, S10-2, S10-3, S10-3s, S10-3t, S12, U150, U160, U330,
U350, U450p, Y450, Y460, Y550, Y560, Y650, Y730, Z360, and Z560**
Memory*S10 and S10-3s*

2G PC2-5300 DDR2 SODIMM Memory 57Y6301

Y460, Y560, Z360, and Z560

1G PC3-8500 DDR3 SODIMM Memory 57Y6509

2G PC3-8500 DDR3 SODIMM Memory 57Y6511

Storage and removable storageUSB 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 MyKey C40 Flash Drive 4GB 57Y6289

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*

Lenovo DataSlim UHD E18 320GB 55Y9401

Lenovo DataSlim UHD E18 500GB 55Y9402

Lenovo Portable DVD Burner GP20N (black) 55Y9391

Lenovo Portable DVD Burner GP20N (white) 55Y9392

ExpansionLenovo Essential Notebook Stand 45J9292 *ann 05/12/09*

Lenovo Notebook Stand S1801A (black) 57Y6484

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*Lenovo Mini Wireless Keyboard N5901⁵² (blk) 57Y6336Ultralim Wireless Keyboard and Mouse⁵² 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*Lenovo Mini Optical Mouse M30 (blue) 47J7738 *ann 06/17/08*Mini Wireless Laser Mouse N10 (black) 45J7731 *ann 06/17/08*

Lenovo Optical Mouse A6010 (red) 57Y6483

Lenovo Optical Mouse A6010 (black) 57Y6255

Lenovo Mini Optical Mouse S10B (white) 55Y9358

Lenovo Mini Optical Mouse S10B (black) 55Y9357

Lenovo Mini Optical Mouse M20B 55Y2091

Lenovo Mini Optical Mouse M30 (blue) 45J7738

Bluetooth Laser Mouse N6901A (black) 57Y6464

Bluetooth Laser Mice N6901A (glossy black) 57Y6482

Lenovo Wireless Mouse N30B (black) 55Y9360

Lenovo Mini Wireless Laser Mouse N10 (blk) 45J7731

Multimedia

Lenovo Mini Speaker M220 55Y2033

Lenovo Headphone P550 55Y2065

Lenovo 7" LCD DPF P700 Black 55Y2059

Lenovo 7" LCD DPF P710 Gold 55Y2048

Batteries and adaptersIdeaPad S9/S10 Li-Ion Battery 6-cell (black) 45K2178 *ann 12/16/08*IdeaPad S9/S10 Li-Ion Battery 6-cell (white) 45K2177 *ann 12/16/08*

IdeaPad S10-2 Li-Ion Battery 6-cell (black) 55Y9382

IdeaPad S10-2 Li-Ion Battery 6-cell (white) 55Y9383

IdeaPad S10-3t Li-Ion Battery 8-cell (black) 57Y6452

IdeaPad S10-3 Li-Ion Battery 6-cell (white) 57Y6448

IdeaPad S10-3 Li-Ion Battery 6-cell (black) 57Y6446

IdeaPad U150 Li-Ion Battery 6-cell (black) 57Y6354

IdeaPad U350 Li-Ion Battery 8-cell (black) 57Y6352

IdeaPad U350 Li-Ion Battery 4-cell (white) 57Y6265

IdeaPad U450P/U550 Li-Ion Battery 6-cell (b) 57Y6309

IdeaPad Y450/Y550 Li-Ion Battery 6-cell 55Y2054 *ann 04/07/09*

IdeaPad Y460/Y560 Li-Ion Battery 6-cell (blk) 57Y6440

G460/G560/V360/Z460/Z560 Li Battery 6-cell 57Y6454

IdeaPad Y650 Li-Ion Battery 6-cell 55Y2055 *ann 04/07/09**S9, S10, and U150*IdeaPad S9/S10 40W AC Adapter (white) 45K2200 *ann 11/18/08*IdeaPad S9/S10 40W AC Adapter (black) 45K2209 *ann 11/18/08**S10-3, S10-3s, and S10-3t*

Lenovo 30W AC Adapter (white) 57Y6430

Lenovo 30W AC Adapter (black) 57Y6415

S10-2, S12, and U160

Lenovo 40W AC Adapter 40A (white) 55Y9361

Lenovo 40W AC Adapter 40A (black) 55Y9370

Y460, Y560, Z360, and Z560

Lenovo 65W AC Adapter 65A 57Y6400

U350, U450P, U550, Y450, Y550, and Y650

IdeaPad 65W AC Adapter 45K2225

Y460 and Y560

Lenovo 90W AC Adapter 90A 57Y6385

*U330, U350, U450P, U550, Y450, Y550, Y650 and Y730⁴⁵*Lenovo 90W AC Adapter 45J7717 *ann 08/12/08*⁴⁵ Only compatible with the integrated graphic models of Y730*Y560*

Lenovo 120W AC Adapter 57Y6549

Carrying Cases

IdeaPad 10" Sleeve S1616 (Black) 57Y6456

IdeaPad 11" Sleeve S310 55Y2086

IdeaPad 12" TopLoader T220 (Black) 55Y2024

IdeaPad 12" TopLoader T220 (Grey) 55Y2025

IdeaPad 13" Sleeve S135 (Pink) 57Y6320

IdeaPad 13" Sleeve S135 (Grey) 57Y6318

IdeaPad 13" Sleeve S135 (Black) 57Y6319

Wenger 14" Backpack CB540 55Y2082

IdeaPad 15" Backpack B450 (Blue-Basic) 55Y2093

IdeaPad 15" Backpack B450 (Black-Basic) 55Y2094

IdeaPad 15" Backpack B450 (pink) 55Y2034 *ann 01/06/09*

IdeaPad 15" Backpack B450 (Blue) 55Y2035

Lenovo 15" Backpack B5650 57Y6457

Lenovo 15" Entry Backpack B10 45J5468 *ann 07/15/08*

IdeaPad 15" TopLoader T150 (Green) 55Y9397

IdeaPad 15" Messenger Case M150 (White) 55Y9381

IdeaPad 15" Messenger Case M150 (Black) 55Y9380

IdeaPad 16" TopLoader T360 55Y2100

MonitorsLenovo L2230x Wide 21.5" Monitor 5453HB1 *ann 06/10/10*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 L2321x Wide 23" Monitor 4014HB6 *ann 06/10/10*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 Security Cable Lock 57Y4303 *ann 08/24/10*Lenovo Easy Reach Monitor Stand 55Y9258 *ann 09/22/09*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.

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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Personal Systems Reference Lenovo IdeaCentre Desktops

September 2010 - Version 385



IdeaCentre K300



IdeaCentre B300


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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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 Processor in FC-LGA6 package in LGA775 socket		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			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		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		
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				
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		Available at these retailers		
Security chip	None		<ul style="list-style-type: none">• B&H™• J&R™• MICROCENTER®• Newegg®• TigerDirect		
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)		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

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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 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 Processor in FC-LGA6 package in LGA775 socket	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		
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✧ 5313-3AU/3BU: 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	Cam-era	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

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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		
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		
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Home Premium 32♦ 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, Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)			

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 Serial ATA, SATA 3.0Gb/s, integrated in ICH10 <i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive <i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, DVD and CD recordable																
SATA controller	Two SATA cables (each 1-drop to device), four SATA connectors																
SATA DVD±RW	None																
SATA Blu-ray™	None																
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 						
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 system²⁰ - 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"> • 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 model announced March 17, 2009; previous models on January 27, 2009


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(KW2-1) March 2009

- **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

Part number	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	DIMM capacity	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	Camera	Vista preload	Avail date
57093697	4x5	E2220	2.40	1MB	2	5GB	(2, 2, 1)	16-in-1	500GB ²	DVD±RW	GMA 3100	None	None	None	Prem 64	Jan 09
57093706	4x5	E5200	2.50	2MB	2	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100	None	None	None	Prem 64	Mar 09
57093729	4x5	E7300	2.66	3MB	2	8GB	(2, 2, 2, 2)	16-in-1	1TB	DVD±RW	GMA 3100	None	None	None	Prem 64	Jan 09
57094418	4x5	Q8200	2.33	4MB	4	6GB	(2, 2, 2)	16-in-1	640GB	DVD±RW	GMA 3100	None	None	None	Prem 64	Mar 09
57093719	4x5	Q8200	2.33	4MB	4	8GB	(2, 2, 2, 2)	16-in-1	1TB	DVD±RW	GMA 3100	None	None	None	Prem 64	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® 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 Duo™ Processor E7300 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 3MB 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 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		
Memory	5GB, 6GB, or 8GB std , 8GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, four 240-pin DIMM sockets					
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G33, uses main memory, one 15-pin analog VGA DB-15 connector					
SATA disk	500GB , 640GB, or 1TB , SATA 3.0Gb/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 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	Four USB 2.0, one 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-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 82256DC					
Wireless	None					
Modem	None					
Security chip	None					
TV tuner	None					
Remote control	None					
Camera	None			Available at these retailers <ul style="list-style-type: none">• TigerDirect		
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 system ²⁰ <ul style="list-style-type: none">- Genuine Windows® Vista® Home Premium 64♦ 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 2007• Windows Live™ Toolbar• Microsoft® Office 2007 Trial (60-day)• Corel® WinDVD® (DVD±RW)• CyberLink Power2Go (DVD±RW)		



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



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

See footnotes for important warranty information

US models announced March 17, 2009; previous models on February 24, 2009

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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	* Wireless adapter or TV tuner in slot in some models
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9DH	** used in some models
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):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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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		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 , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, four 240-pin DIMM sockets	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
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	* 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 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



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 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, 4GB, 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
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	* Wireless adapter in slot in some models ** Graphics adapter in slot in some models
SATA disk	320GB, 640GB, or 1TB SATA 3Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, 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 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	
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 - 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• Corel® WinDVD® (Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)		




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 (78Y1551)
- ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686



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 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, PCI Express x1 Ver 2.0 Slot 4: half-length, full-height, 32-bit PCI Ver 2.3
Implementation		
Memory	4GB or 6GB std , 8GB max ⁸ , dual-channel capable, PC3-8500 1066MHz DDR3 , non-parity, four 240-pin DIMM sockets	
Graphics	ATI™ Radeon™ 3000 , integrated graphics in 760G, uses main memory, DirectX® 10, ATI Avivo™, SurroundView™, one analog VGA DB-15 connector	
SATA disk SATA controller SATA DVD±RW SATA Blu-ray™ SATA cables EIDE controller Diskette drive Media reader	320GB or 640GB SATA 3Gb/s, 7200 rpm Serial ATA, SATA 3.0Gb/s, integrated in SB710, RAID 0 support Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive None Two SATA cables (each 1-drop to device), five SATA connectors None None 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

- **Power control switch on front to adjust power and energy for three modes (cool, auto, and turbo) [except 3019-2GU]**
- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

3019-2GU does not have power control switch


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

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
3019-1DU	4x5	i3-530	2.93	4MB	2	4GB	(2, 2)	16-in-1	500GB ²	DVD±RW	Intel HD GF 310	None	None	None	Prem 64	Apr 10
3019-1EU	4x5	i5-750	2.66	8MB	4	4GB	(2, 2)	16-in-1	640GB	DVD±RW	GF 310	None	None	None	Prem 64	Apr 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 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 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, PCI Express x1 Ver 2.0 Slot 4: half-length, full-height, 32-bit PCI Ver 2.3
Implementation		
Memory	4GB std , 8GB max ⁸ , dual-channel capable, PC3-8500 1066MHz DDR3 , non-parity, four 240-pin DIMM sockets	
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	
SATA disk	500GB or 640GB , SATA 3Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID 0 support	
SATA DVD±RW	Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
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), monitor (VGA DB-15, 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	None	
Ethernet	Gigabit ethernet on planar, Intel 82578DC	
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 - 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• 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 (45K2147)• 3-year Lenovo Onsite Repair 9x5 Next Business Day (45J9079)↪ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686





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	
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	120-watt AC adapter
TV tuner	<i>Some:</i> AverMedia® Hybrid tuner, support analog and digital signal, PCIe Mini Card	RoHS-compliant
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) ➤ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ 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)	
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	
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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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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Type-model	Proc- essor	GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Camera (mega- pixel)	Graphics	SATA disk	External optical	PCIe Mini Card 802.11	TV tuner	Remote control	KBD/ Mouse	Win7 preload	Avail date
4073-2DU	P6100	2.00	None	2GBx2	21.5" FHD	LED	0.3M	Intel HD	320GB ⁸	DVD±RW	11b/g/n ²⁸			BT/BT	Prem 64	Aug 10
4073-2EU	i3-370M	2.40	None	2GBx2	21.5" FHD	LED	0.3M	Intel HD	500GB	DVD±RW	11b/g/n	TV	Remote	BT/BT	Prem 64	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor	Intel® Pentium® processor P6100 with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), and 3MB cache or Intel® Core™ i3 processor i3-370M 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) <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• CyberLink YouCam• Windows Live™ Essential• Microsoft Office 2010 preloaded; purchase product key to activate• 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	
External DVD±RW SATA disk	USB 2.0 external DVD burner, tray-in 320GB or 500GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
Widescreen display	21.5" (546.1mm) Full HD (WUXGA 1920x1080) TFT color, VibrantView (glossy), LED backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, frameless screen	
Camera Controls	Camera on top of screen, 0.3-megapixel, fixed focus, with mono microphone Touch-sensitive buttons for Menu/OK button and Direction buttons	
Graphics	Intel HD Graphics in processor, external digital monitor support via HDMI out connector, HDCP-compliant	
Chipset	Mobile Intel HM55 Express Chipset	
Multicard reader	7-in-1 reader (MultiMedia Card, RS-MMC, Memory Stick, Memory Stick PRO™, Memory Stick Duo, Secure Digital Card, miniSD)	
Ports	<i>Rear:</i> Two USB 2.0, ethernet (RJ-45), TV tuner connector on some models; HDMI in, HDMI out <i>Side:</i> Two USB 2.0	
PCIe Mini Card 11b/g/n ²⁸	Two PCIe Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Broadcom® BCM43225	120-watt AC adapter RoHS-compliant
TV tuner	<i>Some:</i> Hybrid tuner, support analog and digital signal, PCIe Mini Card	
Bluetooth®	Bluetooth 2.1 wireless + EDR, USB 2.0 interface, 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) Power-on password, supervisor password, security lockhole	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
Security		
Keyboard	Wireless keyboard via Bluetooth, 6-row, multimedia Fn keys, white	
Mouse	Wireless laser mouse via Bluetooth, white	
Remote control	<i>Some:</i> MCE remote control, via IR	
Dimensions ³	<i>With base (WxHxD):</i> 20.63" x 15.59" x 8.15"; 524mm x 396mm x 207mm <i>Screen depth:</i> 0.73"; 18.5mm	
Weight ²	15.9 lb (7.2 kg), weight may vary by configuration	
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 August 25, 2010

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Type-model	Proc- essor	GHz	Max turbo (GHz)	Memory	Widescreen display	CCFL or LED	Camera (mega- pixel)	Graphics	SATA disk	External optical	PCIe Mini Card 802.11	TV tuner	Remote control	KBD/ Mouse	Win7 preload	Avail date
4073-1GU	i3-350M	2.26		2GBx2	21.5" FHD	LED	0.3M	Intel HD	320GB ⁸	DVD±RW	11b/g/n ²⁸	TV	Remote	BT/BT	Prem 64	Aug 10
4073-1HU	i5-450M	2.40	2.66	2GBx2	21.5" FHD	LED	0.3M	Intel HD	500GB	DVD±RW	11b/g/n	TV	Remote	BT/BT	Prem 64	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor	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, 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• Driver and Application Installation• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• CyberLink YouCam• Windows Live™ Essential• Microsoft Office 2010 preloaded; purchase product key to activate• 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	
External DVD±RW SATA disk	USB 2.0 external DVD burner, tray-in 320GB or 500GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
Widescreen display	21.5" (546.1mm) Full HD (WUXGA 1920x1080) TFT color, VibrantView (glossy), LED backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, frameless screen	
Camera Controls	Camera on top of screen, 0.3-megapixel, fixed focus, with mono microphone Touch-sensitive buttons for Menu/OK button and Direction buttons	
Graphics	Intel HD Graphics in processor, external digital monitor support via HDMI out connector, HDCP-compliant	
Chipset	Mobile Intel HM55 Express Chipset	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) ➤ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 877-453-6686
Multicard reader	7-in-1 reader (MultiMedia Card, RS-MMC, Memory Stick, Memory Stick PRO™, Memory Stick Duo, Secure Digital Card, miniSD)	
Ports	<i>Rear:</i> Two USB 2.0, ethernet (RJ-45), TV tuner connector on some models; HDMI in, HDMI out <i>Side:</i> Two USB 2.0	
PCIe Mini Card 11b/g/n ²⁸	Two PCIe Mini Card slots	
TV tuner	Hybrid tuner, support analog and digital signal, PCIe Mini Card	
Bluetooth®	Bluetooth 2.1 wireless + EDR, USB 2.0 interface, 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, white	
Remote control	MCE remote control, via IR	
Dimensions ³	<i>With base (WxHxD):</i> 20.63" x 15.59" x 8.15"; 524mm x 396mm x 207mm <i>Screen depth:</i> 0.73"; 18.5mm	
Weight ²	15.9 lb (7.2 kg), weight may vary by configuration	
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 August 25, 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	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
3011-2AU	T4200	2.00	2GB	21.5" WUXGA	1.3	GMA	320GB ⁸	DVD±RW	11b/g ²⁸			Mono	USB		Prem 64	Apr 09
3011-2BU	T4200	2.00	3GB	21.5" WUXGA	1.3	GMA	500GB	DVD±RW	Intel 5100			Mono	USB		Prem 64	Apr 09
3011-2CU	T4200	2.00	4GB	21.5" WUXGA	1.3	GMA	640GB	DVD±RW	Intel 5100			Mono	USB		Prem 64	Apr 09
3011-3AU	T6400	2.00	3GB	21.5" WUXGA	1.3	GMA	640GB	DVD±RW	* Intel 5100			Mono	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
<ul style="list-style-type: none">• 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 <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 <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications ¹⁴ <ul style="list-style-type: none">• 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															
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)											Some: 130-watt (GMA graphics) AC adapter Some: 150-watt (ATI graphics) AC adapter RoHS-compliant				
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											Some: 130-watt (GMA graphics) AC adapter Some: 150-watt (ATI graphics) AC adapter RoHS-compliant				
Bluetooth™	Some: Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator															
Modem	None											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				
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	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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(BL1-1) April 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	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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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 system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• 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		
Mouse	<i>Some:</i> USB full-size keyboard with USB hub (two USB ports) <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)		

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

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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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 A700
with optional 3-in-1 mouse



Lenovo IdeaCentre A700



Lenovo IdeaCentre A700
with optional 3-in-1 mouse



Lenovo IdeaCentre A700



Lenovo IdeaCentre A700



Lenovo IdeaCentre A700

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Widescreen display	Multi-Touch screen	Graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	TV tuner	Remote control	AC adapter	Keyboard/Mouse	Win7 preload	Avail date
4024-3AU	i3-350M	2.26		4GB	23" FHD	Multi	Intel HD	320GB ⁸	DVD±RW	11b/g/n ²⁸	TV	IR remote	120W	BT/BT	Prem 64	Jun 10
4024-1AU	i7-720QM	1.60	2.80	4GB	23" FHD	Multi	HD 5650	1TB	DVD±RW	11b/g/n	TV	IR remote	150W	BT/BT	Prem 64	Jun 10
4024-4AU	i3-370M	2.40		4GB	23" FHD	Multi	Intel HD	320GB	DVD±RW	11b/g/n	TV	IR remote	150W	BT/BT	Prem 64	Aug 10
4024-4BU	i5-460M	2.53	2.80	4GB	23" FHD	Multi	HD 5470	500GB	DVD±RW	11b/g/n	TV	IR remote	150W	BT/BT	Prem 64	Aug 10
4024-4CU	i7-740QM	1.73	2.93	4GB	23" FHD	Multi	HD 5650	1TB	DVD±RW	11b/g/n	TV	IR remote	150W	BT/BT	Prem 64	Aug 10

- **All-In-One design with 23" Full HD 16:9 widescreen, multi-touch support**
- **Integrated TV tuner**
- **Lenovo® Rescue System provides OneKey recovery without booting into Windows**
- **JBL® stereo speakers**

Processor	Intel® Core™ i3 processor i3-350M or i3-370M 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 i5-460M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache or Intel Core i7 processor i7-720QM or i7-740QM with quad-core , DMI, 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® Rescue System• Driver and Application Installation• CyberLink YouCam• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Lenovo Dynamic Brightness System• Lenovo Eye Distance System• Cyberlink Power2Go (DVD±RW)• Lenovo IdeaTouch (Touch models)<ul style="list-style-type: none">– PowerCinema– Lenovo VeriTouch– AutoCollage Touch• Windows Live Essential• Microsoft® Office 2007 Trial (60-day)
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	<i>Some:</i> 120-watt AC adapter <i>Some:</i> 150-watt AC adapter ENERGY® STAR 5.0-compliant RoHS-compliant
SATA DVD±RW SATA disk	DVD burner, dual-layer support, fixed, not removable, slot-in 320GB, 500GB or 1TB , SATA 3.0Gb/s, 7200 rpm, 3.5" wide	
Widescreen display	23" (584.2mm) Full HD (WUXGA 1920x1080) TFT color, VibrantView (glossy), LED backlight , 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, with microphone Touch-sensitive buttons for LED light on/off, volume up/down, brightness up/down, Novo Vision, mode switch (PC / HDMI IN / AV IN), and display on/off	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, with microphone Touch-sensitive buttons for LED light on/off, volume up/down, brightness up/down, Novo Vision, mode switch (PC / HDMI IN / AV IN), and display on/off	
Controls	Touch-sensitive buttons for LED light on/off, volume up/down, brightness up/down, Novo Vision, mode switch (PC / HDMI IN / AV IN), and display on/off	
Graphics	<i>Some:</i> Intel HD Graphics in processor, uses main memory; <i>Some:</i> ATI™ Mobility Radeon™ HD 5470, 512MB memory, DirectX® 11; <i>Some:</i> ATI Mobility Radeon HD 5650, 1GB memory, DirectX 11	Limited Warranty ¹² ⇒ 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 <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) ⇒ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 877-453-6686
Chipset	Mobile Intel HM55 Express Chipset	
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, SDHC)	
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), TV tuner connector, S/PDIF out, HDMI in/out <i>Side:</i> Two USB 2.0, eSATA, microphone (3.5 mm), headphone (3.5 mm), IEEE 1394 FireWire 400 (4-pin connector)	
PCIe Mini Card	Two PCI Express Mini Card slots	
11b/g/n ²⁸	11b/g/n wireless ⁴ , Mini PCIe adapter, Broadcom® chip or Atheros chip	
TV tuner	Hybrid tuner, support analog and digital signal, PCIe Mini Card	
Bluetooth™	Bluetooth 2.1 wireless + EDR	
Modem	None	
Ethernet	Gigabit ethernet on planar, Intel 82577LC	
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / Dolby® Home Theater™ certified, JBL stereo speakers (5 watt x 2) Power-on password, administrator password	
Security	Power-on password, administrator password	
Keyboard	Bluetooth full-size keyboard, 6-row, 104-key, black	
Mouse	Bluetooth Optical Wheel Mouse, black	
Remote control	MCE remote control, via IR	
Dimensions ³	<i>(WxHxD):</i> 22.4" x 16.9" x 2.8"; 568mm x 430mm x 71mm	
Weight ²	<i>Touch models:</i> 32.6 lb (14.8kg)	
Chassis	Black color; ABS plastic	
Stand	Adjustable stand (between 12° and 35°)	
Wall mount	Wall mount kit, meets VESA 100mm mount standard	

See footnotes for important warranty information

US models announced August 25, 2010; previous models on June 3, 2010

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(CTLN1-1) August 2010

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**
 - **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	Processor	GHz	Max turbo (GHz)	Memory	Widescreen display	Multi-Touch screen	Graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	TV tuner	Remote control	AC adapter	Keyboard/Mouse	Win7 preload	Avail date
4024-3BU	i3-350M	2.26	2.53	4GB	23" FHD	Multi	Intel HD	500GB ⁸	DVD±RW	11b/g/n ²⁸	TV	IR remote	120W	BT/BT	Prem 64	Jun 10
4024-2BU	i5-430M	2.26	2.80	4GB	23" FHD	Multi	HD 5470	640GB	DVD±RW	11b/g/n	TV	IR remote	150W	BT/BT	Prem 64	Jun 10
4024-1CU	i7-720QM	1.60	2.80	8GB	23" FHD	Multi	HD 5650	1TB	BD player	11b/g/n	TV	4-in-1	150W	BT/BT	Prem 64	Jun 10

- **All-In-One design with 23" Full HD 16:9 widescreen, multi-touch support**
- **Integrated TV tuner**
- **Lenovo® Rescue System provides OneKey recovery without booting into Windows**
- **(Selected models) 4-in-1 remote control acts as a motion game controller (requires game support), VOIP handset, Media Center remote control, and air mouse**
- **JBL® stereo speakers**

Processor	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, integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology, and 3MB cache or Intel Core i7 processor i7-720QM with quad-core, DMI, integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology, 6MB cache											Preloaded operating system²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Lenovo® Rescue System • Driver and Application Installation • CyberLink YouCam • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • Lenovo Dynamic Brightness System • Lenovo Eye Distance System • Cyberlink Power2Go (DVD±RW, BD player) • Corel® WinDVD® (BD player) • Lenovo IdeaTouch (Touch models) <ul style="list-style-type: none"> – PowerCinema – Lenovo VeriTouch – AutoCollage Touch • Windows Live Essential • Microsoft® Office 2007 Trial (60-day) 				
Memory	4GB or 8GB 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															
SATA DVD±RW	<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 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	500GB , 640GB , or 1TB , SATA 3.0Gb/s, 7200 rpm, 3.5" wide															
Widescreen display	23" (584.2mm) Full HD (WUXGA 1920x1080) TFT color, VibrantView (glossy), LED backlight , 250 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, Novo Vision, mode switch (PC / HDMI IN / AV IN), and display on/off															
Graphics	<i>Some:</i> Intel HD Graphics in processor, uses main memory; <i>Some:</i> ATI™ Mobility Radeon™ HD 5470 , 512MB memory, DirectX® 11; <i>Some:</i> ATI Mobility Radeon HD 5650 , 1GB memory, DirectX 11															
Chipset	Mobile Intel HM55 Express Chipset															
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, SDHC)															
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), TV tuner connector, S/PDIF out, HDMI in/out <i>Side:</i> Two USB 2.0, eSATA, microphone (3.5 mm), headphone (3.5 mm), IEEE 1394 FireWire 400 (4-pin connector)											<i>Some:</i> 120-watt AC adapter <i>Some:</i> 150-watt AC adapter ENERGY® STAR 5.0-compliant RoHS-compliant				
PCIe Mini Card	Two PCI Express Mini Card slots															
11b/g/n ²⁸	11b/g/n wireless ⁴ , Mini PCIe adapter, Broadcom® chip or Atheros chip															
TV tuner	Hybrid tuner, support analog and digital signal, PCIe Mini Card															
Bluetooth™	Bluetooth 2.1 wireless + EDR															
Modem	None															
Ethernet	Gigabit ethernet on planar, Intel 82577LC															
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / Dolby® Home Theater™ certified, JBL stereo speakers (5 watt x 2)															
Security	Power-on password, administrator password															
Keyboard	Bluetooth full-size keyboard, 6-row, 104-key, black															
Mouse	Bluetooth Optical Wheel Mouse, black															
Remote control	<i>Some:</i> MCE remote control, 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															
Dimensions ³	(WxHxD): 22.4" x 16.9" x 2.8"; 568mm x 430mm x 71mm															
Weight ²	<i>Touch models:</i> 32.6 lb (14.8kg)															
Chassis	Black color; ABS plastic															
Stand	Adjustable stand (between 12° and 35°)															
Wall mount	Wall mount kit, meets VESA 100mm mount standard															

See footnotes for important warranty information
 US models announced June 3, 2010

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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**
 - **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**



Lenovo IdeaCentre B305
with optional bluetooth keyboard and mouse



Lenovo IdeaCentre B305
AV IN and TV IN on some models



Lenovo IdeaCentre B305



Lenovo IdeaCentre B305
with optional PS/2 keyboard and USB mouse



Lenovo IdeaCentre B305



Lenovo IdeaCentre B305

Type-model	Processor	GHz	Memory	Widescreen display	Multi-Touch screen	Graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	TV tuner	Remote control	Keyboard/Mouse	Win7 preload	Avail date
4031-1FU	Athlon II X2 235e	2.70	4GB	21.5" FHD	Multi	3000	500GB ⁸	DVD±RW	11b/g/n ²⁸			PS2/USB	Prem 64	Jun 10
4031-3BU	Athlon II X2 235e	2.70	4GB	21.5" FHD	Multi	3000	1TB	DVD±RW	11b/g/n			BT/BT	Prem 64	Aug 10
4031-1GU	Athlon II X3 400e	2.20	4GB	21.5" FHD	Multi	HD 5450	640GB	DVD±RW	11b/g/n	TV	IR remote	BT/BT	Prem 64	Jun 10
4031-1HU	Athlon II X4 600e	2.20	4GB	21.5" FHD	Multi	HD 5450	1TB	DVD±RW	11b/g/n	TV	IR remote	BT/BT	Prem 64	Jun 10

- **All-In-One design with 21.5" Full HD 16:9 widescreen, multi-touch support**
- **(Selected models) Integrated TV tuner**
- **Lenovo® Rescue System provides OneKey recovery without booting into Windows**

Processor	AMD® Athlon™ II X2 Processor 235e with dual-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 tech, int DDR3 memory controller, and 2MB L2 cache (1MB per core) or AMD Athlon II X3 Processor 400e with triple-core , 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 tech, int DDR3 memory controller, and 1.5MB L2 cache (512KB per core) or AMD Athlon II X4 Processor 600e with quad-core , 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 tech, int DDR3 memory controller, and 2MB L2 cache (512KB per core)	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Rescue System• Driver and Application Installation• CyberLink YouCam• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Lenovo Dynamic Brightness System• Lenovo Eye Distance System• Cyberlink Power2Go (DVD±RW)• Lenovo IdeaTouch (Touch models)<ul style="list-style-type: none">– PowerCinema– Lenovo VeriTouch– AutoCollage Touch• Windows Live Essential• Microsoft® Office 2007 Trial (60-day)
Memory	4GB std / 4GB 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	
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, tray-in	
SATA disk	500GB, 640GB, or 1TB , SATA 3.0Gb/s, 7200 rpm, 3.5" wide	
Widescreen display	21.5" (546.1mm) Full HD (WUXGA 1920x1080) TFT color, VibrantView (glossy), LED backlight , 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, with microphone Controls Buttons for brightness up, brightness down, display on/off, and power on/off	
Graphics	<i>Some:</i> ATI™ Radeon™ 3000 , integrated graphics in 760G, uses main memory, DirectX® 10; <i>Some:</i> ATI Radeon HD 5450 , PCI Express® x16, 512MB memory, DirectX 11, ATI Avivo™ HD	
Chipset	AMD 760G Chipset with HyperTransport 3.0 and PCI Express 2.0 support; SB710 south bridge	
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, SDHC)	
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), TV tuner connector on some models, IEEE 1394 FireWire 400 (4-pin connector) <i>Side:</i> Two USB 2.0, microphone input jack (3.5 mm), headphone jack (3.5 mm)	<i>Integrated models:</i> 120-watt AC adapter <i>Discrete models:</i> 130-watt AC adapter ENERGY® STAR 5.0-compliant RoHS-compliant
PCIe Mini Card	Two PCI Express Mini Card slots	Limited Warranty ¹² ⇒ 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 <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) ⇒ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 877-453-6686
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, Broadcom® chip or Atheros chip	
TV tuner	<i>Some:</i> Hybrid tuner, support analog and digital signal, PCIe Mini Card	
Bluetooth™	Bluetooth 2.1 wireless + EDR	
Modem	None	
Ethernet	10/100 ethernet on planar, RealTek® RTL8103EL	
Audio support	High Definition (HD) Audio, RealTek ALC272 codec / stereo speakers (3 watt x 2)	
Security	Power-on password, administrator password	
Keyboard	<i>Some:</i> Bluetooth full-size keyboard, 6-row, 104-key, black <i>Some:</i> Full-size keyboard (PS/2 connector), Fn keys, black	
Mouse	<i>Some:</i> Bluetooth Optical Wheel Mouse, black <i>Some:</i> Optical Wheel Mouse (USB connector), black	
Remote control	<i>Some:</i> MCE remote control, via IR	
Dimensions ³	(WxHxD): 20.7" x 16.0" x 4.37"; 526mm x 407mm x 111mm	
Weight ²	<i>Touch models:</i> 24.7 lb (11.2kg)	
Chassis	Black color; ABS plastic	
Stand	Adjustable stand (between 15° and 40°)	

See footnotes for important warranty information

US model announced August 25, 2010; previous models on June 3, 2010

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(BBDS1-1) August 2010

Type-model	Processor	GHz	Memory	Widescreen display	Multi-Touch screen	Graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	TV tuner	Remote control	Keyboard/Mouse	Win7 preload	Avail date
4031-1RU	Athlon II X2 235e	2.70	2GB	21.5" FHD	Multi	HD 5450	320GB ⁸	DVD±RW	11b/g/n ²⁸			PS2/USB	Prem 64	Jun 10
4031-1QU	Athlon II X3 400e	2.20	4GB	21.5" FHD	Multi	HD 5450	500GB	DVD±RW	11b/g/n	TV	IR remote	PS2/USB	Prem 64	Jun 10
4031-1PU	Athlon II X4 600e	2.20	4GB	21.5" FHD	Multi	HD 5450	640GB	DVD±RW	11b/g/n	TV	IR remote	PS2/USB	Prem 64	Jun 10

- **All-In-One design with 21.5" Full HD 16:9 widescreen, multi-touch support**
- **(Selected models) Integrated TV tuner**
- **Lenovo® Rescue System provides OneKey recovery without booting into Windows**

Processor	AMD® Athlon™ II X2 Processor 235e with dual-core , 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 tech, int DDR3 memory controller, and 2MB L2 cache (1MB per core) or AMD Athlon II X3 Processor 400e with triple-core , 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 tech, int DDR3 memory controller, and 1.5MB L2 cache (512KB per core) or AMD Athlon II X4 Processor 600e with quad-core , 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 tech, int DDR3 memory controller, and 2MB L2 cache (512KB per core)	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Rescue System• Driver and Application Installation• CyberLink YouCam• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Lenovo Dynamic Brightness System• Lenovo Eye Distance System• Cyberlink Power2Go (DVD±RW)• Lenovo IdeaTouch (Touch models)<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 / 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	DVD burner, dual-layer support, fixed, not removable, tray-in	
SATA disk	320GB , 500GB , or 640GB , SATA 3.0Gb/s, 7200 rpm, 3.5" wide	
Widescreen display	21.5" (546.1mm) Full HD (WUXGA 1920x1080) TFT color, VibrantView (glossy), LED backlight , 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, with microphone	
Controls	Buttons for brightness up, brightness down, display on/off, and power on/off	
Graphics	ATI™ Radeon™ HD 5450 , PCI Express® x16, 512MB memory, DirectX® 11, ATI Avivo™ HD	
Chipset	AMD 760G Chipset with HyperTransport 3.0 and PCI Express 2.0 support; SB710 south bridge	
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, SDHC)	
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), TV tuner connector on some models, IEEE 1394 FireWire 400 (4-pin connector) <i>Side:</i> Two USB 2.0, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
PCIe Mini Card 11b/g/n ²⁸	Two PCI Express Mini Card slots	
TV tuner	11b/g/n wireless ⁴ , PCIe Mini Card, Broadcom® chip or Atheros chip	
Bluetooth™	<i>Some:</i> Hybrid tuner, support analog and digital signal, PCIe Mini Card	
Modem	None	
Ethernet	10/100 ethernet on planar, RealTek® RTL8103EL	
Audio support	High Definition (HD) Audio, RealTek ALC272 codec / stereo speakers (3 watt x 2)	
Security	Power-on password, administrator password	
Keyboard	Full-size keyboard (PS/2 connector), Fn keys, black	
Mouse	Optical Wheel Mouse (USB connector), black	
Remote control	<i>Some:</i> MCE remote control, via IR	
Dimensions ³	(WxHxD): 20.7" x 16.0" x 4.37"; 526mm x 407mm x 111mm	
Weight ²	<i>Touch models:</i> 24.7 lb (11.2kg)	
Chassis	Black color; ABS plastic	
Stand	Adjustable stand (between 15° and 40°)	
		Discrete models: 130-watt AC adapter ENERGY® STAR 5.0-compliant RoHS-compliant
		Limited Warranty ¹² ⇒ 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 <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) ⇒ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 877-453-6686

See footnotes for important warranty information
 US models announced June 3, 2010

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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) <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	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 Optical 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 (43R8882)
- ⇒ 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 Optical 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**
 - **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**

Type-model	Proc- essor	GHz	Max turbo (GHz)	Memory	Widescreen display	Camera (mega- pixel)	Graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	TV tuner	Remote control	Key- board/ Mouse	Win7 preload	Avail date
7712-1SU	i3-550	3.20		2Gx2	23" FHD	0.3M	HD5450 512MB	500GB ⁸	DVD±RW	11b/g/n ²⁸			BT/BT	Prem 64	Sep 10
7712-1TU	i5-650	3.20	3.46	2Gx3	23" FHD	0.3M	HD5570 1G	1TB	DVD±RW	11b/g/n	TV	IR remote	BT/BT	Prem 64	Sep 10
7712-1UU	i7-870S	2.66	3.60	2Gx3	23" FHD	0.3M	HD5850 1G	2TB	DVD±RW	11b/g/n	TV	IR remote	BT/BT	Prem 64	Sep 10

- **All-In-One design with 23" Full HD 16:9 widescreen, glossy display**
- **(Seleted models) Integrated TV tuner**
- **JBL® stereo speakers**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor	Intel® Core™ i3 processor i3-550 with dual-core, Intel 64, Hyper-Threading 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, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache or Intel Core i7 processor i7-870S with quad-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 8MB cache Processor in LGA1156 socket	Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Rescue System• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• Lenovo Dynamic Brightness System• Lenovo Eye Distance System• Cyberlink Power2Go (DVD±RW)• Windows Live Essential• CyberLink YouCam• Microsoft Office 2010 preloaded; purchase product key to activate
Implementation		
Memory	4GB or 6GB std / 16GB max ⁷ / DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
SATA optical	DVD burner, dual-layer support, 12.7mm, tray-in	
SATA disk	500GB , 1TB , or 2TB , 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> ATI™ Radeon™ HD 5450 , PCI Express® x16, 512MB memory; <i>Some:</i> ATI Radeon HD 5570 , PCI Express x16, 1GB memory; <i>Some:</i> ATI Mobility Radeon HD 5850 , PCI Express x16, 1GB memory	
Chipset	Intel H55 Express Chipset	
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card)	
Ports	<i>Rear:</i> Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), eSATA, 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)	
PCle Mini Card	Two PCIe Mini Card slots	
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Half Mini Card adapter, Broadcom® or Atheros chip	
TV tuner	<i>Some:</i> Hybrid tuner, support analog and digital signal, PCIe Mini Card adapter	
Bluetooth™	Bluetooth 2.1 wireless + EDR	
Modem	None	
Ethernet	Gigabit ethernet on planar, Intel 82578DC	
Audio support	High Definition (HD) Audio, Realtek® ALC662 codec / two JBL® stereo speakers (5 watt)	
Security	Power-on password, supervisor password	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">• 2-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1552)• 3-year Lenovo In-Home Repair 9x5 Next Business Day (78Y1553) ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Keyboard	Bluetooth full-size keyboard, 6-row, black	
Mouse	Bluetooth Optical Wheel Mouse, black	
Remote control	<i>Some:</i> MCE remote control (40-button), via IR	
Power supply	200 watts, universal, auto-sensing	
Dimensions ³	(WxHxD): 22.05" x 17.20" x 3.76" to 5.53"; 560mm x 437mm x 95.5 to 140.5mm	
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 15° and 35°)	

See footnotes for important warranty information
 US models announced September 8, 2010

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Limited Warranty¹²

- ⇒ **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**
 - **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**



Lenovo IdeaCentre Q100



Lenovo IdeaCentre Q100



Lenovo IdeaCentre Q100



Lenovo IdeaCentre Q100



Lenovo IdeaCentre Q100
(Monitor is not included)



Lenovo IdeaCentre Q100

IdeaCentre™ Q100 (3014) - Web models

Personal Systems Reference (PSREF)

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	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	
External speakers	None	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
Internal speaker	None	
Ethernet	Gigabit ethernet on planar, Realtek® RLT8111DL	
Wireless	None	
Modem	None	
Security chip	None	
11b/g	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) <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 <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
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 Q150



Lenovo IdeaCentre Q150
(NVIDIA ION models)



Lenovo IdeaCentre Q150
(NVIDIA ION models)



Lenovo IdeaCentre Q150



Lenovo IdeaCentre Q150
with optional mini wireless keyboard N5901



Lenovo IdeaCentre Q150
with optional mini USB keyboard and mouse

Type-model	Processor	GHz	L2 cache	Memory ^a	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Color	Blue-tooth	Keyboard/Mouse	Win7 preload	Avail date
4081-3AU	Atom D410	1.66	512KB	1GBx1	160GB ²	None	GMA 3150	None	None	11b/g/n ²⁸	Black	None	USB/USB	XP Home	Jul 10

- *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*
- *Lenovo® Rescue System provides OneKey recovery without booting into Windows*

Processor	Intel® Atom™ processor D410 with single-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 800MHz), integrated graphics controller, Hyper-Threading technology, and 512KB L2 cache	Tiny Desktop (0.5L) <ul style="list-style-type: none"> • Black color • 6.05" W X 6.8" D X 0.85" H • 153.6mm W X 172.7mm D X 21.7mm H • 1.76 lb (0.8 kg) including stand • No bays, no slots Preloaded operating system²⁰ <ul style="list-style-type: none"> - Genuine Windows® XP Home Edition Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Lenovo Rescue System • Driver and Application Installation • McAfee® VirusScan® Plus 2009 (60 days of virus definitions)
Memory	1GB std , 2GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, one 200-pin SO-DIMM socket	
Graphics	Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor, uses main memory, one analog VGA DB-15 connector	
SATA disk	160GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in NM10 chipset	
SATA DVD±RW	None	
Media reader	None	
Chipset	Intel NM10 Express Chipset	
Front ports	Two USB 2.0, S/PDIF-out	
Rear ports	Two USB 2.0, ethernet (RJ-45), monitor (VGA DB-15) line-in (stereo, 3.5mm), line-out (stereo, 3.5mm)	
Audio	High Definition (HD) audio, RealTek® ALC662 codec	65-watt AC adapter RoHS-compliant 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 often Next Business Day (78Y1551) ↪ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686
External speakers	None	
Internal speaker	None	
Ethernet	10/100M ethernet on planar, Intel 82552V	
Modem	None	
Security chip	None	
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, RealTek® RTL8191SU	
TV tuner	None	
Remote control	None	
Camera	None	
Keyboard	Mini Keyboard (USB connector), black	
Mouse	Mini Optical Wheel Mouse (USB connector), black	
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 July 28, 2010

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(NR2-1) July 2010

Type-model	Processor	GHz	L2 cache	Memory ^a	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Color	Blue-tooth	Keyboard/Mouse	Win7 preload	Avail date
4081-4AU	Atom D510	1.66	1MB	2GBx1	250GB ²	None	NVIDIA ION	None	None	11b/g/n ²⁸	Black	None	2.4GHz	Prem 32	Jul 10

- *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 power saving, saving up to 90% power compared to traditional desktop*
- *Ultra quiet with low power platform*
- *Support 1080p full HD multimedia playback and 3D gaming*
- *Lenovo® Rescue System provides OneKey recovery without booting into Windows*

Processor	Intel® Atom™ processor D510 with dual-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 800MHz), integrated graphic controller, Hyper-Threading technology, and 1MB L2 cache	Tiny Desktop (0.5L) <ul style="list-style-type: none">• Black color• 6.05" W X 6.8" D X 0.85" H• 153.6mm W X 172.7mm D X 21.7mm H• 1.76 lb (0.8 kg) including stand• No bays, no slots Preloaded operating system ²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Home Premium 32 Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo Rescue System• Driver and Application Installation• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• CyberLink PowerDVD (discrete models) 65-watt AC adapter RoHS-compliant
Memory	2GB std , 2GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, one 200-pin SO-DIMM socket	
Graphics	NVIDIA® ION™ graphics processor , DirectX® 10, 512MB memory PureVideo® HD technology, Full HD decode (1080i/p), one analog VGA DB-15 connector, one HDMI connector, HDCP-compliant	
SATA disk	250GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in NM10 chipset	
SATA DVD±RW	None	
Media reader	None	
Chipset	Intel NM10 Express Chipset	
Front ports	Two USB 2.0, S/PDIF-out	
Rear ports	Two USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, HDMI), line-in (stereo, 3.5mm), line-out (stereo, 3.5mm)	
Audio	High Definition (HD) audio, RealTek® ALC662 codec	
External speakers	None	
Internal speaker	None	
Ethernet	10/100M ethernet on planar, Intel 82552V	
Modem	None	
Security chip	None	
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, RealTek® RTL8191SU	
TV tuner	None	
Remote control	None	
Camera	None	
Keyboard	2.4GHz Wireless Mini Keyboard N5901, palm-sized dimensions, keyboard and mouse (with track ball) combo, via micro-size USB receiver	
Mouse	None	
Stand	Detachable stand (matching color with chassis)	
Mount bracket	Mount bracket (black), meets the VESA 75mm and 100mm mount standard	
		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

See footnotes for important warranty information
US model announced July 28, 2010

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(NR2-2) July 2010

IdeaCentre™ Q150 (4081) - GMA (web models)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	L2 cache	Memory ^a	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Color	Blue-tooth	Keyboard/Mouse	Win7 preload	Avail date
4081-5AU	Atom D410	1.66	512KB	1GBx1	160GB ²	None	GMA 3150	None	None	11b/g/n ²⁸	Black	None	USB/USB	XP Home	Jul 10

- *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 power saving, saving up to 90% power compared to traditional desktop*
- *Ultra quiet with low power platform*
- *Lenovo® Rescue System provides OneKey recovery without booting into Windows*

Processor	Intel® Atom™ processor D410 with single-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 800MHz), integrated graphics controller, Hyper-Threading technology, and 512KB L2 cache	Tiny Desktop (0.5L) <ul style="list-style-type: none"> • Black color • 6.05" W X 6.8" D X 0.85" H • 153.6mm W X 172.7mm D X 21.7mm H • 1.76 lb (0.8 kg) including stand • No bays, no slots Preloaded operating system²⁰ <ul style="list-style-type: none"> - Genuine Windows® XP Home Edition Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Lenovo Rescue System • Driver and Application Installation • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) 65-watt AC adapter RoHS-compliant
Memory	1GB std , 2GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, one 200-pin SO-DIMM socket	
Graphics	Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor, uses main memory, one analog VGA DB-15 connector	
SATA disk	160GB , SATA 3.0Gb/s, 2.5" wide, 5400 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in NM10 chipset	
SATA DVD±RW	None	
Media reader	None	
Chipset	Intel NM10 Express Chipset	
Front ports	Two USB 2.0, S/PDIF-out	
Rear ports	Two USB 2.0, ethernet (RJ-45), monitor (VGA DB-15) line-in (stereo, 3.5mm), line-out (stereo, 3.5mm)	
Audio	High Definition (HD) audio, RealTek® ALC662 codec	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 often Next Business Day (78Y1551) ↪ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686
External speakers	None	
Internal speaker	None	
Ethernet	10/100M ethernet on planar, Intel 82552V	
Modem	None	
Security chip	None	
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, RealTek® RTL8191SU	
TV tuner	None	
Remote control	None	
Camera	None	
Keyboard	Mini Keyboard (USB connector), black	
Mouse	Mini Optical Wheel Mouse (USB connector), black	
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 July 28, 2010

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Type-model	Processor	GHz	L2 cache	Memory ⁸	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Color	Blue-tooth	Keyboard/ Mouse	Win7 preload	Avail date
4081-6AU	Atom D510	1.66	1MB	2GBx1	500GB ²	None	NVIDIA ION	None	None	11b/g/n ²⁸	Black	None	USB/USB	Prem 32	Jul 10
<ul style="list-style-type: none">• <i>IdeaCentre Q series provide ultimate multimedia experience for home entertainment</i>• <i>An Ultra-slim and fashionable desktop PC (only 0.5L)</i>• <i>Attaches to the back of selected VESA-compatible monitor for more space saving</i>• <i>Super power saving, saving up to 90% power compared to traditional desktop</i>• <i>Ultra quiet with low power platform</i>• <i>Support 1080p full HD multimedia playback and 3D gaming</i>• <i>Lenovo® Rescue System provides OneKey recovery without booting into Windows</i>															
Processor	Intel® Atom™ processor D510 with dual-core, DMI (Direct Media Interface), integrated DDR2 memory controller (up to 800MHz), integrated graphic controller, Hyper-Threading technology, and 1MB L2 cache											Tiny Desktop (0.5L) <ul style="list-style-type: none">• Black color• 6.05" W X 6.8" D X 0.85" H• 153.6mm W X 172.7mm D X 21.7mm H• 1.76 lb (0.8 kg) including stand• No bays, no slots			
Memory	2GB std, 2GB max ⁸ , PC2-6400 800MHz DDR2, non-parity, one 200-pin SO-DIMM socket														
Graphics	NVIDIA® ION™ graphics processor, DirectX® 10, 512MB memory PureVideo® HD technology, Full HD decode (1080i/p), one analog VGA DB-15 connector, one HDMI connector, HDCP-compliant											Preloaded operating system²⁰ <ul style="list-style-type: none">- Genuine Windows® 7 Home Premium 32			
SATA disk	500GB, SATA 3.0Gb/s, 2.5" wide, 5400 rpm											Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo Rescue System• Driver and Application Installation• McAfee® VirusScan® Plus 2009 (60 days of virus definitions)• CyberLink PowerDVD (discrete models) 65-watt AC adapter RoHS-compliant 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 often Next Business Day (78Y1551)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in NM10 chipset														
SATA DVD±RW	None														
Media reader	None														
Chipset	Intel NM10 Express Chipset														
Front ports	Two USB 2.0, S/PDIF-out														
Rear ports	Two USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, HDMI) line-in (stereo, 3.5mm), line-out (stereo, 3.5mm)														
Audio	High Definition (HD) audio, RealTek® ALC662 codec														
External speakers	None														
Internal speaker	None														
Ethernet	10/100M ethernet on planar, Intel 82552V														
Modem	None														
Security chip	None														
11b/g/n ²⁸	11b/g/n wireless ⁴ , PCIe Mini Card, RealTek® RTL8191SU														
TV tuner	None														
Remote control	None														
Camera	None														
Keyboard	Mini Keyboard (USB connector), black														
Mouse	Mini Optical Wheel Mouse (USB connector), black														
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 July 28, 2010

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(NR2-4) July 2010



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, K230, K300, K305, K320, and Q700
IdeaCentre All-In-One A300, A600, A700, B305, and B500**

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 MyKey C40 Flash Drive 2GB	57Y6288		
USB 2.0 MyKey C40 Flash Drive 4GB	57Y6289		
USB 2.0 MyKey C40 Flash Drive 8GB	57Y6290		
USB 2.0 MyKey C40 Flash Drive 16GB	57Y6287		
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
Lenovo DataSlim UHD E18 320GB	55Y9401		
Lenovo DataSlim UHD E18 500GB	55Y9402		
Lenovo Portable DVD Burner GP20N (black)	55Y9391		
Lenovo Portable DVD Burner GP20N (white)	55Y9392		

Keyboard

Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Lenovo Mini Wireless Keyboard N5901 ⁵² (blk)	57Y6336		
Lenovo Keyboard and Mouse KM4802A (blk)	57Y6462		
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
Lenovo Mini Optical Mouse M30 (blue)	47J7738	ann	06/17/08
Mini Wireless Laser Mouse N10 (black)	45J7731	ann	06/17/08
Lenovo Optical Mouse A6010 (red)	57Y6483		
Lenovo Optical Mouse A6010 (black)	57Y6255		
Lenovo Mini Optical Mouse S10A (white)	55Y9356		
Lenovo Mini Optical Mouse S10A (black)	55Y9355		
Lenovo Mini Optical Mouse S10B (white)	55Y9358		
Lenovo Mini Optical Mouse S10B (black)	55Y9357		
Lenovo Mini Optical Mouse M20A	55Y2090		
Lenovo Mini Optical Mouse M20B	55Y2091		
Lenovo Mini Optical Mouse M30 (blue)	45J7738		
Bluetooth Laser Mouse N6901A (black)	57Y6464		
Bluetooth Laser Mice N6901A (glossy black)	57Y6482		
Lenovo Wireless Mouse N30B (black)	55Y9360		
Lenovo Mini Wireless Laser Mouse N10 (blk)	45J7731		

Multimedia

Lenovo Mini Speaker M220	55Y2033		
Lenovo Headphone P550	55Y2065		
Lenovo 7" LCD DPF P700 Black	55Y2059		
Lenovo 7" LCD DPF P710 Gold	55Y2048		

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
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 L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
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 Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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.

- 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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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 system ²⁰ - 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 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 • 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)	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
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)	
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	None One Mini PCI Express slot 11b/g wireless ⁴ , Lenovo 11b/g Mini PCI Express Adapter, Broadcom® BCM4312	
Bluetooth™ Modem Ethernet	None 56K ⁶ V.92 ¹⁵ modem 10/100 ethernet, Broadcom® BCM5906M	
Audio support	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

Lenovo® G530 (4151) - GMA (Windows 7) - web models

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	Blue-tooth	Battery cells	Win7 preload	Avail date
4151-A2U	T4400	2.20	3GB	15.4" WXGA	0.3M	GMA	160GB ⁸	DVD±RW	Lenovo 11b/g ¹¹	Black	None	6-cell	Prem 32	Feb 10

- 15.4" widescreen, glossy display
- Integrated 0.3 megapixel camera

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Processor T4400 with dual-core, 800MHz system bus, and 1MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 32 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)
Memory	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		
Diskette drive	None		
SATA DVD±RW SATA disk	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high		
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio		<div>65-watt AC adapter Wireless on/off switch RoHS-compliant</div> <div>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</div>
Camera	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</i> (DB-15 port)		
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, recovery key		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	<i>(WxDxH):</i> 14.1" x 10.1" x 1.22" to 1.46"; 358.5mm x 256.5mm x 31 to 37mm		
Weight ²	with optical drive and battery: <i>6-cell:</i> 5.95 lb (2.7 kg)		
Case color	Black top, black bottom		
Case material	ABS plastic; <i>Palm rest:</i> ABS plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	<i>6-cell:</i> up to 3 hr		
Chipset	Mobile Intel GL40 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub		
ExpressCard/54	None		
Multicard reader	None		
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		
PCIe Mini Card	One PCI Express Mini Card slot		
Lenovo 11b/g ¹¹	11b/g wireless ⁴ , Lenovo 11b/g PCIe Mini Card, Broadcom® BCM4312		
Bluetooth™	None		
Modem	None		
Ethernet	10/100 ethernet		
Audio support	High Definition (HD) Audio/ two main speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	Power-on password, supervisor password, security lockhole		
Fingerprint reader	None		

See footnotes for important warranty information
US model announced June 3, 2010

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(ACN1-2) June 2010

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 <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			
Camera				
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)		65-watt (GMA graphics) AC adapter Wireless on/off switch RoHS-compliant	
Mini PCI Express	One Mini PCI Express slot		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	
RealTek b/g ¹¹	Some: 11b/g wireless ⁴ , Mini PCI Express Adapter, RealTek chipset			
Intel 5100 ²⁸	Some: 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			
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		
N500/G530 Series Li-Ion Battery 6-cell	51J0226	Kensington Twin Head Cable Lock 45K1620		
Lenovo G430/530/450/550 Battery 6-cell	57Y6266	Other accessories at lenovo.com/accessories		
N500/G500 Series 90W AC Adapter	41R4515			

See footnotes for important warranty information

* Intel Centrino® processor technology

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US models announced September 10, 2009, previous models on March 31, 2009

(DOV2-1) September 2009

US models withdrawn effective October 2009

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Lenovo G450



Lenovo G450



Lenovo G450



Lenovo G450

- **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**

See footnotes for important warranty information
US model announced August 11, 2009

Type-model	Processor	GHz	Memory	Widescreen display	Cam-era	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	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 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		90-watt AC adapter Wireless on/off switch ENERGY STAR® 5.0-compliant RoHS-compliant
Keyboard Numeric keypad	Full-size keyboard, Fn keys, recovery key None		
Multimedia controls	Touch-sensitive volume control panel		
Touch pad	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 3.6 hr		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
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	None		
Mini PCI Express Intel 5100 ²⁸	One Mini PCI Express slot 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	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 model announced October 23, 2009

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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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processo	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) • Lenovo OneKey Recovery • Lenovo ReadyComm • McAfee® VirusScan® Plus 2009 (60 days of virus definitions) • CyberLink YouCam • Microsoft Office 2010 preloaded; purchase product key to activate • 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 Numeric keypad Multimedia controls Touch pad	Full-size keyboard, 6-row, recovery key None 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	<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)		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 ⇒ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
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 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• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)
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		
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		
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	<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		

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
• 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 August 19, 2009; previous models on July 8, 2009

Ⓜ US models withdrawn effective October 2009

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- 15.6" widescreen, glossy display
- Integrated 0.3 megapixel camera
- Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows

See footnotes for important warranty information
US models announced October 23, 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
2958-9PU	T4500	2.30	4GB	15.6" WXGA	0.3M	4500M	GL40	250GB	DVD±RW	11b/g	Black				Prem 64	Jul 10
2958-8GU	Cel 900	2.20	3GB	15.6" WXGA	0.3M	4500M	GL40	160GB	DVD±RW	11b/g	Black				Prem 32	Aug 10
2958-XFU	Cel 900	2.20	2GB	15.6" WXGA	0.3M	4500M	GL40	160GB	DVD±RW	11b/g	Black				Prem 64	Aug 10
2958-LFU	Cel 900	2.20	3GB	15.6" WXGA	0.3M	4500M	GL40	250GB	DVD±RW	11b/g	Black				Prem 32	Aug 10
2958-LEU	Cel 900	2.20	4GB	15.6" WXGA	0.3M	4500M	GL40	500GB	DVD±RW	11b/g	Black				Prem 64	Aug 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® Celeron® Processor 900 with single-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium® processor T4300, T4400, or T4500 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 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 • Cyberlink Power2Go (DVD±RW)
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	
Diskette drive	None	
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in	
SATA disk	160GB (5400 rpm), 250GB (5400 rpm), 320GB (5400 rpm), 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, 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
Weight ²	With optical drive and battery: <i>6-cell:</i> from 5.95 lb (2.7 kg)	Wireless on/off switch
Case color	Gray or Black top, black bottom	ENERGY STAR® 5.0-compliant
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	RoHS-compliant
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™	<i>Some:</i> Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator	
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 4, 2010;

previous models on October 23 or December 17, 2009, April 28, 2010, or July 28, 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	2+1GB	15.6" HD	0.3M	HD 4200	160GB ⁸	DVD±RW	11b/g/n ²⁸	Black	Keypad	None	6-cell	Prem 32	Feb 10
0873-74U	M340	2.20	2GBx1	15.6" HD	0.3M	HD 4200	160GB ⁸	DVD±RW	11b/g/n	Black	Keypad	None	6-cell	Prem 32	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Widescreen flexibility; two-spindle AMD® Athlon™ II Dual-Core processor M320 or M340 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• Microsoft Office 2010 preloaded; purchase product key to activate• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)
Memory	2GB or 3GB std / 4GB max ⁷ / PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;		
Diskette drive	None		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	160GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high		
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		
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		
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	(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: 6-cell : 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	6-cell : 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™	None		
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		

| **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 ⇒ **Toll-free support for warranty issues during the warranty period**¹² via 877-453-6686 | | |

See footnotes for important warranty information

US model announced August 4, 2010; previous models on 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	2+1GB	15.6" HD	0.3M	HD 4200	320GB ⁸	DVD±RW	11b/g/n ²⁸	Black	Keypad	Blue	6-cell	Prem 32	Feb 10
0873-26U	M320	2.10	2GBx2	15.6" HD	0.3M	HD 4200	500GB	DVD±RW	11b/g/n	Black	Keypad	Blue	6-cell	Prem 64	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Widescreen flexibility; two-spindle AMD® Athlon™ II Dual-Core processor M320 with dual-core , integrated DDR2 memory controller, and 1MB L2 cache or AMD Turion™ II Dual-Core Mobile processor M520 with dual-core , integrated DDR2 memory controller, and 1MB L2 cache		Preloaded operating system ²⁰ - <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 (60 days of virus definitions)• CyberLink YouCam• Microsoft Office 2010 preloaded; purchase product key to activate• VeriFace™• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)
Memory	3GB or 4GB std / 4GB max ⁷ / PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;		
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		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 ⇨ Toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
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		
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		
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	(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	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		
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

²⁸ US model announced August 4, 2010; previous models on 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	PCIe Mini Card 802.11	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

- **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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 2010 preloaded; purchase product key to activate • 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 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 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	(WxDxH): 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) 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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Type-model	Pro- cessor	GHz	Max turbo (GHz)	Memory	Widescreen display	Cam- era	Integrated graphics	SATA disk	SATA optical	PCIe Mini Card 802.11	Top color	HDMI con- nector	Express- Card	eSATA port	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	/34	eSATA	Prem 64	Apr 10
0679-98U	P6100	2.00		4GB	15.6" HD	0.3M	Intel HD	500GB	DVD±RW	11b/g/n	Black				Prem 64	Aug 10
0679-99U	P6100	2.00		4GB	15.6" HD	0.3M	Intel HD	320GB	DVD±RW	11b/g/n	Black				Prem 64	Aug 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**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processo	Widescreen flexibility; two-spindle Intel® Pentium® processor P6100 with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), 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 system²⁰ - Genuine Windows® 7 Home Premium 64 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 2010 preloaded; purchase product key to activate • VeriFace™ • Lenovo Energy Management Software • Lenovo DirectShare • 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, 12.7mm high, tray-in 320GB (5400 rpm) or 500GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high															
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 (on selected models)															
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 <i>Some:</i> 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 (eSATA available on selected models), ethernet (RJ-45), monitor (VGA DB-15, HDMI on selected models)															
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 models announced August 25, 2010; previous models on April 7, 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-connector	Blue-tooth	Battery cells	Win7 preload	Avail date
0679-23U	i3-330M	2.13	None	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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 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®• CyberLink YouCam• Microsoft Office 2010 preloaded; purchase product key to activate• VeriFace™• Lenovo Energy Management Software• Lenovo DirectShare• 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 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
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	15.6" (396.2mm) HD (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	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: <i>6-cell</i> : 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	<i>6-cell</i> : 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 May 12, 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	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**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

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 2010 preloaded; purchase product key to activate • 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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August 2010
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Personal Systems Reference Lenovo® Essential Desktops

September 2010 - Version 385



C200 series All-In-One



C315 series All-In-One

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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)	Graphics	SATA disk	SATA optical	Color	TV tuner	PCIe Mini Card 802.11	Blue-tooth	Win7 preload	Avail date
4025-1BU	Atom D510	1.66	2GB	18.5" HD	Touch	0.3M	NVIDIA ION	320GB ⁸	DVD±RW	Black	None	11b/g/n ²⁸	None	Prem 32	Apr 10
4025-1CU	Atom D510	1.66	2GB	18.5" HD		0.3M	NVIDIA ION	320GB	DVD±RW	Black	None	11b/g/n	None	Prem 32	Apr 10
4025-3GU	Atom D510	1.66	1GB	18.5" HD		0.3M	GMA 3150	250GB	DVD±RW	Black	None	11b/g/n	None	Prem 32	Aug 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 system²⁰ - Genuine Windows® 7 Home Premium 32 Preloaded applications¹⁴ (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	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	DVD burner, dual-layer support, fixed, removable, 12.7mm, tray-in	
SATA disk	250GB or 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	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	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor; <i>Some:</i> NVIDIA® ION™ graphics processor , DirectX 10, PureVideo® HD technology, 256MB memory	
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	65-watt AC adapter RoHS-compliant
PCIe Mini Card	One Mini PCI Express Mini Card slot	Limited Warranty¹² ➤ 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
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	<i>Non-touchscreen model:</i> 16.01 lb (7.26kg); <i>Touchscreen model:</i> 17.11 lb (7.76kg)	
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 August 25, 2010; previous models on April 28, 2010

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Lenovo® C200 (4025) - Windows 7 (web models)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Touch screen	Camera (mega-pixel)	Graphics	SATA disk	SATA optical	Color	TV tuner	PCIe Mini Card 802.11	Blue-tooth	Win7 preload	Avail date
4025-3HU	Atom D410	1.66	2GB	18.5" HD	None	0.3M	GMA 3150	320GB ⁸	DVD±RW	Black	None	11b/g/n ²⁸	None	Prem 32	Sep 10
4025-3JU	Atom D510	1.66	2GBx2	18.5" HD	None	0.3M	GMA 3150	500GB	DVD±RW	Black	None	11b/g/n	None	Prem 64	Sep 10
4025-3KU	Atom D510	1.66	2GBx2	18.5" HD	None	0.3M	NVIDIA ION	500GB	DVD±RW	Black	None	11b/g/n	None	Prem 64	Sep 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 or Intel Atom Processor D510 with dual-core , DMI, integrated DDR2 memory controller (up to 800MHz), Hyper-Threading Technology, 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• 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 or 4GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets	
SATA optical	DVD burner, dual-layer support, fixed, removable, 12.7mm, tray-in	
SATA disk	320GB or 500GB , 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	65-watt AC adapter RoHS-compliant
Controls	Power button, brightness up, brightness down, and display on/off buttons	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 3150 (GMA 3150) , in processor; <i>Some:</i> NVIDIA® ION™ graphics processor , DirectX® 10, PureVideo® HD technology, 256MB memory	
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	<i>(WxHxD) including stand:</i> 18.12" x 15.13" x 6.63"; 460.3mm x 384.3mm x 168.3mm	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
Weight ²	<i>Non-touchscreen model:</i> 16.01 lb (7.26kg); <i>Touchscreen model:</i> 17.11 lb (7.76kg)	
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 models announced September 8, 2010

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(MAUI1-3) September 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	Available at these retailers <ul style="list-style-type: none">• lenovo.com 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">• 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
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	
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 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	
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	Rear: Four USB 2.0, ethernet (RJ-45), keyboard (PS/2), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Left: Two USB 2.0	
Mini PCI Express	One Mini PCI Express slot	120-watt AC adapter RoHS-compliant
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312	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
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 ⇨ 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 • 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
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, 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	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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Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ³	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Power supply	Win7 preload	Avail date
0893-1EU	4x4	Athlon II X2 240	2.80	2MB	2	2GBx1	16-in-1	320GB ²	DVD±RW	Radeon 3000	None	180W	Prem 32	Aug 10
0893-1FU	4x4	Athlon II X2 240	2.80	2MB	2	2GBx2	16-in-1	1TB	DVD±RW	Radeon 3000	None	180W	Prem 64	Aug 10

- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Processor	AMD® Athlon™ II X2 Processor 240 with dual-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, integrated DDR3 memory controller, and 2MB L2 cache (1MB per core)	Tower <ul style="list-style-type: none">• Black bezel with glossy finish• 6.9" W X 16.2" D X 14.2" H• 175mm W X 412mm D X 360mm H• 17.6 lb (8.0 kg), weight may vary by configuration Bay ① 5.25", 1.6" high, access, standard optical Bay ② N/A, N/A, N/A, media reader* Bay ③ 3.5", 1" high, no access, standard disk Bay ④ 3.5", 1" high, no access, optional disk * Only for optional 16-in-1 media reader 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
Implementation	Processor in Socket AM3	
Memory	2GB or 4GB std , 4GB max ⁸ , dual-channel capable, PC3-8500 1066MHz DDR3 , non-parity, two 240-pin DIMM sockets	
Graphics	ATI™ Radeon™ 3000 , integrated graphics in 760G, uses main memory, DirectX® 10, ATI Avivo™, one analog VGA DB-15 connector, one HDMI connector, HDCP	
SATA disk	320GB or 1TB , SATA 3.0Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710	
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	
EIDE cables	None	
Diskette drive	None	
Media reader	16-in-1 media reader	
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	Four USB 2.0, keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, HDMI)	
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	
External speakers	None	
Internal speaker	None	
Ethernet	10/100 ethernet on planar, Realtek 8103EL	
Modem	None	
Security chip	None	
TV tuner	None	
Camera	None	
Keyboard	104-key standard keyboard (PS/2 connector)	
Mouse	Optical Wheel Mouse (USB connector)	
Power supply	180 watts, universal, 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 Home Premium 64 Preloaded applications⁵ <ul style="list-style-type: none">• Lenovo® Rescue System• Driver and Application Installation• McAfee® VirusScan® Plus (60 days of virus definitions)• Windows Live™ Essential• Microsoft Office 2010 preloaded; purchase product key to activate• CyberLink Power2Go (DVD±RW)		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)⇒ 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

See footnotes for important warranty information
US models announced August 25, 2010


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Lenovo® H320 (4041) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Pro-processor	GHz	Cache	Memory ⁸	DIMM capacity	Media reader	SATA disk	SATA optical	Graphics	802.11 wireless	Modem	Power supply	Win7 preload	Avail date
4041-1BU	2x3	i3-540	3.06	4MB	4GB	(2, 2)	8-in-1	500GB ²	DVD±RW	Intel HD	11b/g/n ²⁸	None	180W	Prem 64	Jun 10
4041-1CU	2x3	i3-540	3.06	4MB	6GB	(2, 2, 2)	8-in-1	640GB	DVD±RW	Intel HD	11b/g/n	None	180W	Prem 64	Jun 10
4041-1DU	2x3	i3-550	3.20	4MB	4GB	(2, 2)	8-in-1	1TB	DVD±RW	Intel HD	11b/g/n	None	180W	Prem 64	Aug 10

- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

Processor	Intel® Core™ i3 Processor i3-540 or i3-550 with dual-core, Intel 64, Hyper-Threading Technology, integrated 1333MHz DDR3 memory controller, 4MB cache	Small Form Factor <ul style="list-style-type: none">• Black bezel with glossy finish• 3.9" W X 15.7" D X 11.5" H• 100mm W X 400mm D X 293mm H• 21.5 lb (9.75 kg) vary by configuration Bay ① 5.25", 1.6" high, access, standard optical Bay ② 3.3", 0.6" high, access, 8-in-1 media reader Bay ③ 3.5", 1" high, no access, standard disk Slot 1: half-length, Low Profile, PCI Express x16 Ver 2.0 Slot 2: half-length, Low Profile, PCI Express x1 Ver 2.0* * Wireless adapter in slot in some models
Implementation	Processor in LGA1156 socket	
Memory	4GB or 6GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets	
Graphics	Intel HD Graphics , integrated graphics in processor, uses main memory, DirectX® 10, one 15-pin analog VGA DB-15 connector, one HDMI connector, HDCP	
SATA disk	500GB, 640GB or 1TB , SATA 3.0Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset	
SATA DVD±RW	Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors	
EIDE controller	None	
EIDE cables	None	
Diskette drive	None	
Media reader	8-in-1 media reader	
Chipset	Intel H55 Express Chipset	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Four USB 2.0, keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (DB-15, HDMI)	
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	11b/g/n wireless ⁴ , PCIe x1 adapter	
Ethernet	Gigabit ethernet on planar, intel 82578DC	
Modem	None	
Security chip	None	
TV tuner	None	
Camera	None	
Keyboard	Full-size keyboard (PS/2 connector), Fn keys, black	
Mouse	Optical Wheel Mouse (USB connector), black	
Power supply	180 watts, universal, manual switch	
Preloaded operating system²⁰ - Genuine Windows® 7 Home Premium 64		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">• 2-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1550)• 3-year Lenovo Onsite Repair 9x5 Next Business Day (78Y1551) ⇒ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 877-453-6686
Preloaded applications⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• McAfee® VirusScan® Plus (60 days of virus definitions)• Lenovo Dynamic Brightness System• Lenovo Eye Distance System• CyberLink Power2Go (DVD±RW)• Windows Live Essential• Microsoft® Office 2007 Trial (60-day)		

See footnotes for important warranty information

® US model announced August 25, 2010; previous models on June 11, 2010


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Lenovo® H320 (4041) - Windows 7 (web models)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Pro-processor	GHz	Max turbo (GHz)	Memory ⁸	DIMM capacity	Media reader	SATA disk	SATA optical	Graphics	802.11 wireless	Modem	Power supply	Win7 preload	Avail date
4041-1EU	2x3	i3-540	3.06		4GB	(2, 2)	8-in-1	500GB ²	DVD±RW	Intel HD	None	None	180W	Prem 64	Sep 10
4041-1FU	2x3	i5-650	3.20	3.46	6GB	(2, 2, 2)	8-in-1	640GB	Blu-ray	GeForce 310	None	None	250W	Prem 64	Sep 10

- **Lenovo Rescue System provides OneKey recovery without booting into Windows**

Processor	Intel® Core™ i3 Processor i3-540 with dual-core, Intel 64, Hyper-Threading Technology, integrated 1333MHz DDR3 memory controller, 4MB cache or Intel Core i5 processor i5-650 with dual-core, intel 64, Hyper-Threading Technology, Turbo Boost Technology, TXT, integrated 1333MHz DDR3 memory controller, and 4MB cache Processor in LGA1156 socket	Small Form Factor <ul style="list-style-type: none">• Black bezel with glossy finish• 3.9" W X 15.7" D X 11.5" H• 100mm W X 400mm D X 293mm H• 21.5 lb (9.75 kg) vary by configuration	
Implementation		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 3.3", 0.6" high, access, 8-in-1 media reader Bay ③ 3.5", 1" high, no access, standard disk	
Memory	4GB or 6GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets	Slot 1: half-length, Low Profile, PCI Express x16 Ver 2.0** Slot 2: half-length, Low Profile, PCI Express x1 Ver 2.0*	
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	* Wireless adapter in slot in some models ** Graphic adapter in slot in some models	
SATA disk	500GB or 640GB , SATA 3.0Gb/s, 7200 rpm		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset		
SATA optical	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive <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), two SATA connectors		
EIDE controller	None		
EIDE cables	None		
Diskette drive	None		
Media reader	8-in-1 media reader		
Chipset	Intel H55 Express Chipset		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, HDMI)		
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	Gigabit ethernet on planar, Intel 82578DC		
Modem	None		
Security chip	None		
TV tuner	None		
Camera	None		
Keyboard	Full-size keyboard (PS/2 connector), Fn keys, black		
Mouse	Optical Wheel Mouse (USB connector), black		
Power supply	<i>Some:</i> 180 watts, universal, manual switch <i>Some:</i> 250 watts, universal, auto-sensing		
Preloaded operating system ²⁰ - Genuine Windows® 7 Home Premium 64		Preloaded applications ⁵ <ul style="list-style-type: none">• Lenovo® OneKey Recovery• Driver and Application Installation• McAfee® VirusScan® Plus (60 days of virus definitions)• Lenovo Dynamic Brightness System• Lenovo Eye Distance System• CyberLink Power2Go (DVD±RW)• Windows Live Essential• Microsoft® Office 2007 Trial (60-day)	
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">• 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 September 8, 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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